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EDUCATIONAL REVIEW

JANUARY, 1912

I

PROFESSOR BERGSON ON THE SOUL

[Professor Henri Bergson of the University of Paris has just completed the delivery of four lectures at the University of London on the nature of the soul. The following summary of these important lectures is taken from the report in the London *Times*.]

1

Professor Bergson, who spoke in French, said that no one appreciated or admired English philosophy more than he. He saw in English philosophy and in French philosophy two great manifestations of human thought—manifestations similar on certain sides, different, and indeed opposed, perhaps, on others, but mutually complementary. In both the need of clearness was evidently felt. If one read a passage of Locke, of David Hume, of Berkeley, or of Mill, or a passage of Descartes, of Malebranche, or of Condillac, one arrived at the conclusion that there was no philosophy, however subtle, however profound, which could not express itself in language which every one could understand. Beneath this resemblance of form there was another which was fundamental. The great masters of French and English philosophy had this thought in common—that philosophy is not a thing of schools only; that it takes its origin in life, and that if it passes thru the schools it has to enter again into life. The problems of philosophy interest, or ought to interest, every one. It was true that philosophy

had a tendency to forget this, but it was brought back to it by Socrates among the ancients, by Bacon among the moderns, and it was always needing to be brought back to it again. There was a movement in England and America on the one hand, in France on the other, the object of which was precisely to bring back philosophy to the study of those vital problems which were of interest to humanity as a whole. He was about to inquire, in these lectures, into the problem of the nature of the soul; to inquire into its essential characteristics; to determine how the action of the mind on things in general ought to be represented.

DIFFICULTIES TO BE DISPELLED

It was necessary, first, to dispel the artificial difficulties which had gathered round the question. They were of two kinds. There were the difficulties which had been raised in the name of science and which appeared to come from science; and there were those which come directly from philosophy. The difficulties of the first kind might be formulated in the following terms:—"The problem of the soul is only one particular case of a more general problem—the problem, namely, of matter. At any rate, it is inseparable from this latter problem. For we see that states of consciousness are united to states of body, more particularly in certain modifications of cerebral matter. So long as we are not acquainted with the essence of these modifications, we shall likewise not know what there is at the back of the conscious life."

This objection, however, rested entirely on the notion that consciousness has no independence of its own, that it merely expresses, in its own way, certain states of the brain, that the content of a fact of consciousness is to be found wholly in the correspondiing cerebral state, the one being the equivalent or the translation of the other. It was true that we should not find many physiologists or philosophers who would tell us now that the brain secretes thought as the liver secretes bile. But there was an idea that if we could see thru the skull and observe what takes place in the brain, if we had an

enormously powerful microscope such as there probably never would be, which would permit us to follow the movements of the molecules, atoms, electrons of the brain; and if we had the key to the correspondence between the phenomena and the mind we should know all the thoughts and wishes of the person to whom the brain belonged; we should see what took place in his soul as a telegraph operator could read by the oscillation of his needles the meaning of a message which was sent thru his instrument. The notion of an equality or of a parallelism between conscious activity and cerebral activity was commonly adopted by modern physiology, and it was accepted without discussion, as a scientific notion, by the majority of philosophers. Yet the experimental basis of this theory was extremely slight, indeed altogether insufficient; and, in reality, the theory was a metaphysical contention. It took its origin in the metaphysic of the seventeenth century, the metaphysic of Descartes, of Spinoza, of Leibnitz. The origin of this hypothesis was the great discoveries of the Renaissance. After Galileo and Kepler men were taken with the great hope that everything might be reduced to calculation. The universe was regarded as an immense machine, and it seemed impossible, if one started from that hypothesis, that a movement should not be calculable from its antecedents in the same way as astronomical phenomena were calculable.

The idea had been accepted that all was capable of determination, in the psychical world as in the physical world, inasmuch as the psychical was only a reflex of the physical. This view had been adopted by science on account of its convenience, but philosophy ought not to accept it without criticism, and he would try to show that it could not withstand the criticism that might be brought against it. The relation between the two things, the physical and the metaphysical, was not denied. It existed. What was the relation? Was it equivalent? No.

PHILOSOPHICAL DIFFICULTIES

Passing to the difficulties which come directly from philosophy, Professor Bergson said that the source of all knowledge

was perception. Perception was much richer than we were apt to suppose. It contained a number of things to which we ordinarily paid no attention, because to notice them served no practical purpose. Consequently this part of our perception remained confused. What was distinct in perception was, accordingly, the result of a selection made with a view to practise. More precisely, we only retained of our perceptions, internal and external, that which could enter into our concepts —that is to say, into certain classifications which had been made, once for all, with a view to our action upon matter. The part played by the concept was essentially utilitarian. Knowledge by means of concepts neglects, then, necessarily a good deal of the content of perception. In regard to the problem of mind the two opposing schools, empiricism and substantialism, agree on one point. The former attempts to apply to the mind the concept of multiplicity, the latter the concept of unity. But both would make the mind enter into the mold of a concept. Hence the insurmountable difficulties which the authors of these doctrines have themselves for the most part recognized. Was it necessary that the soul should enter into one or other of those categories? Unity was a thing; multiplicity was a cohesion of things. The soul was not a thing; it was a movement. One broke a thing, but not a movement. We must put on one side the categories, the classes, the concepts for this effort which we ought to attempt. It was very difficult; it must be made gradually, progressively. But by the accumulation of the efforts of all the philosophers who wisht to work in this direction we should perhaps arrive one day at the light.

II

Professor Bergson began by reminding his hearers that he had ended his first lecture with the assertion that in the study of matters relating to the interior consciousness they must make their minds *tabula rasa* in respect to concepts, categories, and classes. These were meant for the knowledge of things external to ourselves, and they would not work when the

matter in question was the knowledge of interior things, of the things of the moral world—the knowledge of the soul by the soul. If we employed them we fell into the illusions, the difficulties, and antinomies of all kinds, pointed out by criticism and scepticism, which had objected that there could be no knowledge of these transcendental things. The conclusion that should be drawn, however, was that to know these objects we must not classify them, but must bring ourselves face to face with the concrete reality.

THE NATURE OF THE INNER LIFE

When we sought to apply this method to our interior life we were confronted with a great difficulty, because this interior life was fluidity, mobility itself; it was perpetual change; and, however paradoxical it might seem, we were not made to perceive either change or movement in themselves. A great French writer—La Rochefoucauld—had said that there were two things upon which we could not look fixedly—the sun and death. He might have added change and movement. Movement really moving, change really changing—we could not look on them without becoming giddy. We knew that everything changed—we affirmed and repeated it, but it was mere words. From the earliest times recorded in the history of philosophy, from the beginning of the Greek philosophy, from the tenth century B.C. to Hegel, philosophers had never stopt saying that everything changed; but when the moment came for the practical application of this proposition they acted as if they believed that at the bottom of things there was immobility and invariability. He affirmed that the greatest difficulties of philosophy were due to not taking account of the fact that change and movement were universal. And this was because our intuitive faculties of external and internal perception were vitiated in speculative employment by the coarse necessity of living and acting. Kant himself proceeded thus. For when he denied that our ordinary faculties of perception could attain to absolute reality, and when he maintained that for this we should need faculties of intui-

tion which we do not possess, the ordinary faculties of perception he spoke of were faculties already falsified by the habit of immobilizing movement. So that he had criticized not our faculties of perception in general, as he believed, but certain habits contracted by them in practise—habits from which we ought precisely to free ourselves in speculation.

THE RESULT OF CHANGE AND MOVEMENT

It was not enough to say that everything changed and moved; we must believe it. Let us assume that everything changed and moved—what would result from that proposition? The first result would be that immobility was a thing more complicated than movement. We liked to say that immobility was a reality as movement was also. We started from immobility, but if we really took seriously the proposition that everything was in movement, that everything changed, then there was no immobility. What we called immobility was a composite—a relation between movements. This was seen from what happened if we were in a train while another train was moving in the same direction beside ours and at the same speed. We said that the second train was motionless, and the people in that train said that ours was motionless. Similarly immobility was a relation between two or more things. Immobility was a thing more complex than one movement—it consisted of at least two movements. He had spoken of immobility and of movement. He might say the same of the "state" of things and of change. What we called a state was the appearance which a change assumed in the eyes of a being who himself changed according to an identical or analogous rhythm. Take, for example, a summer day. We are stretched on the grass: we look round us. Everything is at rest. There is absolute repose, immobility, no change. But the grass grows; the leaves of the tree develop or decay; we ourselves are growing older all the time. And that which seems rest, simplicity itself, is but a composite of our ageing with the changes which take place in the grass, in the leaves, in all that is around us. Suppose our

ageing (*durée intérieure*) grew slower, adopting the rhythm of the grass and the tree, we should perceive a procession of changes like that which it was pretended was produced in India when a fakir put a seed into a flowerpot and displayed before the eyes of those around a plant which seemed to grow, to put forth leaves and flowers, and finally to bear fruit.

What he wanted to make them understand by these illustrations was that it was change and movement which were really simple; it was the "state" and it was rest which were really composite. All change and all movement were indivisible—something which was given to us, so to speak, in the lump. If we could adopt for ourselves the rhythm of the life (*durée*) of things we should realize that change is something simple and indivisible, and that every "stable state" is the result of the coexistence between that change and the change of the person who perceived it. If we started from this point we arrived at the conclusion that common sense, that intelligence left in its natural state, reversed the natural state of things.

ANALOGY BETWEEN A MELODY AND THE SOUL

From the earliest times philosophers had recognized the difficulty which arose from confusing the successive states of a thing with its movement. Zeno had done so in his famous paradox of the arrow; and another instance was afforded by the paradox of Achilles the swift-footed and the tortoise. The same difficulty was encountered in regard to our understanding of our interior consciousness. Our inner life was change itself, continuity itself; but all our habits of thought tended to fix mobility, to consolidate fluidity, to fix the change. We thought we recognized constantly succeeding states of the soul—now a pleasure, now a grief. Our inner life seemed to be a series of incessantly succeeding intellectual and voluntary states or phenomena. And yet we had a scruple and told ourselves that it was not thus—that the interior life was quite other than this. It was certain that our inner life was a

succession, but not a succession of the before and after as we ordinarily represented it to ourselves. However paradoxical it might seem, he believed that the real succession did not involve separation between a before and after. This distinction only came in when the succession was impregnated with other things. Take the case of a tune or melody well played. The notes succeeded each other and formed the melody, but the notes were not the melody. What charmed the ear was that which one perceived while it endured—it was not one note and then another note. They might say that the melody might be cut short, stopt. Very well; it would be another melody, but up to the point where it stopt it was indivisible. We were apt to mix up spatial images—a piano, a keyboard, a violin, a musical score, with the music. Let us suppress all that and we had the consciousness of melody. That was the indivisible succession; and the real *durée,* the real time, was indivisible, and was immediately perceived by the consciousness to be indivisible. In other words, our inner life was like a melody, indivisible. In this way the sharp distinction which we ordinarily make between our present and our past disappears, and yet for all that time is not abolished. Time subsists, but instead of being artificial as it was it again becomes real. This indivisibility of the flux of the inner life from beginning to end, this cohesion of the past with the present in pure duration, is exactly that which constitutes the substantiality of the soul.

By putting ourselves at this point of view we see that the difficulties raised by empiricism on the one side, and by the traditional substantialism on the other, collapse—difficulties which justified the Kantian Critique. We obtain a knowledge of the mind by intuition. Intuition—far from excluding time and being in consequence impossible, as Kant supposed—constrains us, on the contrary, to be earnest in replacing ourselves in the time which endures—which in ordinary life we do not do.

III

Professor Bergson said that in the last lecture they tried, by analyzing the notions of immobility and invariability, to arrive at a clear vision of that perpetual immobility which belonged to our inner consciousness; and they had come to the conclusion that the soul was continuity (*durée*) itself, and precisely for this reason formed a whole, one and indivisible. If we considered our interior life from this point of view, as one and the same movement from the first awakening of consciousness to the end, we saw that it was something like a melody of which the notes were successive, but followed each other in such a manner that the melody was, *qua* melody, indivisible. From this it resulted that each incident, the totality of our past, was present to us, and that the soul, if it had *élan* and movement, had also memory—conservation of the entire past. If we started from this conception of the inner life we should come to represent to ourselves in a manner different from that which was our wont the relations of the mind to the body, or—not to prejudge the matter—the relation of the consciousness to the sensibility, to the cerebral phenomena which in one way or another accompanied it. Ordinarily we represented the past to ourselves as clean cut off from the present—the past does not exist any longer, it is abolished, it is dead, whilst the present is that which lives. Yet experience showed us that certain parts at least of the past could be recalled by the consciousness. There were memories; but how could we explain them? We supposed that memory was preserved beside and outside of the consciousness, and that the rôle of the brain was to register a part at least of the past, that the past wrote itself in part, at least, on the brain as a tune inscribed itself on the disc of a gramophone. He proceeded to criticize this theory, taking for this purpose the simplest thing, the visual recollection of an object. In what did it consist? If the theory was correct when he lookt at the table before him that object affected the retina of the eye, which transmitted its affection in a certain manner along the optic nerve to a certain center, and there a certain impres-

sion was recorded as an impression was recorded on a photographic plate.

It was said that the visual impression endured. He would ask which? Millions of impressions of the same object might be imprest on the brain if the image was really imprest. Altho the advocates of the theory of parallelism did not realize the fact, the theory substituted for these multitudes of impressions one philosophical entity.

LESSONS FROM PATHOLOGY

Professor Bergson proceeded to speak at length of facts observed in certain pathological states, such as amnesia and aphasia, which were sufficiently embarrassing to those who held the theory that the recollections are indeed deposited in the centers. He referred to the observations of Wernicke, Broca, and Pierre Marie, and contended that the doctrine of parallelism was contradicted by the facts. Yet it was in the domain of memory that the doctrine had always been judged to be most firmly established. In truth it was a doctrine constructed *a priori* on the double hypothesis that the psychical life is a series of discontinuous states, and that universal mechanism is the truth. The *a priori* character of the doctrine was particularly apparent in the genesis and development of theories of aphasia. Some physiologists were now beginning to doubt the validity of the fundamental facts on which the edifice reposed.

The facts observed up to the present time permitted us to infer that there were in the brain sensory regions and motor regions, or rather, sensori-motor regions. That was all we had been able to prove so far, and he believed that nothing else would be found. Nevertheless, it was incontestable that the entire psychical life was allied in a certain manner to the activity of the brain. He said that the totality of our past was present to the consciousness. Observation, experience, confirmed the theory, for there were cases to which he referred which seemed to prove that we forgot nothing. The memory, envisaged as a purely spiritual thing, preserved all

the past. But where should we be if all our recollections were always present to the consciousness? Life consisted in acting, in doing. To have consciousness of that which we had to do it was necessary that the totality of our thoughts should be masked from our view; not so that we did not know that they were there, but so that they should not invade our consciousness and prevent us from doing that which we had to do. But it was necessary that certain parts of this past should be recalled at certain moments.

THE RÔLE OF THE BRAIN

The brain, in his opinion, was the organ which played this rôle, and had this distinction in that which concerned the memory as a whole—it was an instrument of oblivion. Theoretically it was an instrument of oblivion rather than an instrument which allowed some of all our recollections to enter into the consciousness—just those which served for the occasion. There were always some which smuggled themselves in, once the door was open, and it was there only that the brain played the part of a screen; but it was a screen constantly available in such a manner as to allow to pass just the recollections of which we had need and which would be useful to our present action. In short, the brain was the organ of the direction of our memory, or rather of the mind in the present occasion. The brain was the organ of sense, the organ of movement, and it was probably not anything else. The brain had as its especial rôle the contracting of habits. It had to make the body contract certain habits of movement, such, for example, as habits of articulation. The cerebral organ of the memory was therefore very probably an organ in which was set up the mechanism of movement, the mechanism which allowed our body to place itself in the attitude proper to the situation of the moment. He believed that the rôle of the brain was simply to direct (*orienter*) the mind towards action. It was only that, but that was enormous because all our mental life depended upon it. The brain was the point of attachment between the soul and reality,

and it was that point which was cut or very much damaged in the case of the greater number of the insane. The relation between the mental and the cerebral life was not a simple relation. The brain was not the equivalent of the mental life. The relation was much more complicated, and could only be exprest in a concept, in an image. The image he preferred and liked to employ was the following comparison. The brain is to the mind that which the point of a knife is to the knife itself. The point of the knife is that by which the knife penetrates into reality, and the brain is something like the point of the mind. The mental life is to the brain what the knife is to the point.

IV

Professor Bergson said they had now arrived at the conclusion that the body played a double part in relation to the mind. On one side it limited the mind as one puts blinkers on a horse to force it to look in front of it. The brain, by limiting the field of vision of the mind, by forcing it to concentrate itself on life, prevented it from wandering; it gave to the mind ballast and equilibrium. So that we compared the relation of the body to the mind to the relation that the point of a knife has to the knife itself, the relation that the prow of a vessel has to the vessel itself. The prow is the part in which the vessel fines itself down to a point, the point which marks the direction of the vessel at each moment, and which enables it to go forward thru the waves. Similarly the brain, or, to speak more generally, the body, is that by which the mind contracts itself in order to penetrate the billows of reality. But as the prow is not the equivalent of the vessel, so the cerebral life is not the equivalent of the mental life. On one side the body appears to be very different from the mind, since it limits it and prevents it from seeing many things; yet, adopting the comparisons just made, it is still like a part of the mind.

A MODERN DIFFICULTY

At what point does matter resemble and touch the mind, and where does it separate itself from it and differ from it? The question presented no difficulty to the Platonists, the Aristotelians, the Neo-Platonists. They had no difficulty in inserting the body in the mind or the mind in the body. The difficulty was a modern one, and it had led certain philosophers to doubt the possibility of our ever knowing the essentials of the body or the spirit in such a way as to give an explanation of both or either. The problem dated from Descartes, and he had stated it because, science having been reconstructed at the Renaissance on an exclusively mathematical basis, it was necessary to consider matter from the sides on which it lays itself open to calculation. This can be done only by treating matter as if it had no essential property but that of extension. Extension, space, is that which is infinitely divisible. Now, we can not represent the mind as infinitely divisible. Therefore Descartes, proceeding on these lines, came to the conclusion that the mind was a thinking thing and the body an extended thing. He said that these two substances communicated, but he could not explain their communication theoretically. Those who came after him, while they accepted his distinction, adopted the view that mind and body could never communicate.

These thinkers were misled by the confusion of concrete extension with mathematical space. Science, essentially practical, is obliged to divide matter. It is obliged to take things for this purpose in the state in which our perception gives them to us. Certain divisions are indicated in nature, just as they are in the anatomy of an animal, but the objects themselves are continuous. Science goes on dividing mass into molecules, molecules into atoms, atoms into electrons; but, in proportion as it divides matter, it is obliged to reestablish, under one form or another, the continuity which it has broken between the parts, the particles, which it has distinguished. Nature is not so discontinuous as we believe. It is less spatial than philosophers tell us; and, on the other hand, the mind

is perhaps, on one of its sides, more extended than philosophers have thought. If we consider it on this side, i.e., on the side of perception and sensation, we see that all perception and sensation participate in extension. The tendency of modern psychology is to regard sensations, or, at any rate, certain of them, as extended. He believed it would go further in this direction. There was nothing shocking in supposing that the mind in one of its directions was capable of extension, for extension was not the infinitely divisible thing which modern thought represented it to be; nor was the mind so spiritual, so detached a thing as modern philosophy had conceived. Matter was nearer to mind, mind to matter, than a certain school of metaphysics had allowed us to think.

THE DIFFERENCE BETWEEN MIND AND MATTER

But, then, what was the difference between them? The capital, the radical, difference he believed to consist in this: That mind was essentially a memory which collected and preserved the past, so that at every moment the totality of the past was present in it, tho not always distinctly visible. Matter was deprived of memory—or, if it possest memory, that memory was so short as to be only just sufficient to throw a bridge between one moment and another. But this very distinction between matter and mind, founded on considerations of time and of memory, allows us to understand how matter and mind come to be united, and especially what is the *raison d'être* of this union.

If we consider the smallest perceptible element of our own duration—a certain fraction of a second—we find that in this *minimum* of our duration matter is capable of accomplishing an enormous number of successive events—for example, those hundreds of trillions of vibrations which give us the sensation of light. We should need hundreds of centuries even to count that number—and yet all that comes to pass in a moment of our perception. What can be the meaning of this enormous difference between the rhythm of our own duration and the rhythm of the duration of matter?

In a general manner, when we come to seize in a single vision a great number of human events we are more fitted to direct them. The man of action, the politician, is a man who thus condenses external duration and thereby comes to dominate events. We can conjecture, then, by analogy, that the enormous difference of tension between the duration of our consciousness and that of matter is just that which allows of the mind's acting on matter, and of its making of this inert matter an instrument of freedom. Lookt at from this point of view, the mind appears as a free force, which, placed in the presence of matter and wishing to master it, gives to itself the rhythm of duration necessary to enable it to condense, in one of its moments, enormous periods in the history of things.

But as soon as we adopt this point of view a multitude of facts presents itself to us from all sides which confirm this hypothesis. First there are the facts of organization. We see that a body like the human body is essentially a nervous system placed on apparatuses the rôle of which is to sustain, to repair, to clean, and especially to supply it with energy. And as, in this nervous system itself, the essential part is the brain, which seems to be above all an organ of choice, we may say that it is towards the performance of chosen actions that all the activity of our physical organism converges.

THE SOUL A CREATIVE FORCE

Shall we now consider our moral organism? It comprises three essential parts—sensibility, intelligence, and will. But the study of the sensibility and the study of the intelligence reveal to us more and more, in these two faculties, instruments of action in the service of the will. So that here again it is towards action that all converges. The soul—essentially action, will, liberty—is, then, the creative force *par excellence,* the productive agent of novelty in the world. It creates acts, and it can, in addition, create itself—not only modify its quality, but also increase its intensity. With a little will one can do much if one places the will in the right direction. For

this force—the will—has this exceptional character, that its intensity depends on its direction, and that its quality may become the creator of quantity.

Now, whence comes this force? What is the origin of souls? Shall we suppose with Plotinus that they reside in the suprasensible world and that they have fallen into bodies? It is unnecessary to have recourse to allegories of this nature. It is enough to observe, as was done in the first lecture, that the concepts of multiplicity and of unity apply strictly only to matter, for which they were made; and that, in the world of the mind, they are often inapplicable. This is true of the inner life of each one of us, which is neither one nor manifold. If then we take all human souls, real and possible, we find that they are far from being as distinct from each other as we believe. We must, then, figure to ourselves, in the beginning, a general interpenetration of souls; and this interpenetration is the very principle of life.

This principle produces life, and all the evolution of life, by its entrance into matter. First seized by matter, it has become its prisoner. It seeks to free itself, and at the same time to divide and to distinguish (thanks to matter) that which was in it in the state of reciprocal penetration. Thus alone, moreover, could the elements which it virtually bore in it intensify themselves.

The history of this great effort is the very history of the evolution of life on our planet. We see that this principle must have left many things on the way. Certain lines of evolution seem to have failed. But on the line of evolution which leads to man the liberation has been accomplished, and thus personalities have been able to constitute themselves. So that if we could seize in one simple unique vision this line of evolution we should have before us, as it were, a telegraph wire on which has traveled a dispatch sent off as long ago as the first beginning of life—a message which was then confused, a message of which a part has been lost on the way, but which has at last found, in the human race, the appropriate receptive apparatus.

II

THE MONOPOLIZING WOMAN TEACHER

I

"Master," pleaded the camel, "it is very cold outside: permit that I place the tip of my nose inside thy tent: see, thou canst not notice it;" and the master grunted assent. "Master," again begged the camel, "it is so biting without, permit that I put my entire head inside: see, it doth not incommode thee." And the master was indifferent. "Master," continued the camel, "I still shiver in the wind: thou wilt not mind that I draw my neck and shoulders inside." And the master sullenly lay over to the edge of the tent. Then the camel raised itself upon its knees and to its feet and drew all its body inside. "See here," it said, "there is not room for both of us in here: thou hadst better sleep outside."—*Old fable.*

At the meeting of the National Educational Association in 1870, John W. Dickinson, freshly returned from a visit to German schools, reported that not once had he seen a woman teacher there. In city and in country; in high, in grammar, in primary departments; in schools for boys and in schools for girls, all the teachers he saw were men. Yet there were some women teachers in Germany even then. I have no official figures at hand, but I find it stated that the number of men teachers decreased between 1882 and 1895 from 72.6 per cent. to 68.5 per cent.; in France, between 1886 and 1896, from 54.5 per cent. to 42.4 per cent.; between 1881 and 1901, in Italy, from 41.2 per cent. to 35.4 per cent., and in Great Britain, from 29.6 per cent. to 26.8 per cent.

In America, women got an earlier and a stronger grip. In his fourth report, for 1840, Horace Mann says: "It is gratifying to observe that a change is rapidly taking place, both in public sentiment and action, in regard to the employment of female teachers. The number of male teachers in all the summer and winter schools, for the last year, was 33 less than for the year preceding, while the number of female teachers was 103 greater."

The Massachusetts returns for 1837 are the earliest we have giving official statistics of the proportion of men and women teachers. The percentage of women was already 60. In 1840 it had risen to 62, in 1850 to 71, in 1860 to 81, in 1870 to 87, in 1890 to 89, and in 1900 to 91, where it remained in 1910, in spite of the effort to put men into the eighth grade.

New York reports began earlier, but they did not distinguish between men and women teachers till 1856, when the percentage of woman was 56. It had risen in 1860 to 69, in 1870 to 77, in 1890 to 83, in 1900 to 85, in 1910 to 89.

The Vermont biennial report for 1908 gives a table showing that the proportion of women teachers rose from 21 per cent. in 1855 to 85 in 1875, 88 in 1886, and 90 in 1908.

In Rhode Island the percentage of women teachers in 1907 was 92; in Connecticut it rose from 81 in 1876 to 93 in 1910.

The New Hampshire reports began in 1846, when the percentage of women teachers was 31. It rose in 1860 to 71, in 1870 to 84, in 1874 to 87, in 1888 to 90, in 1907 to more than 95, and in 1908 to nearly 96. Poor little 4 per cent. of men teachers, 126 to 2,529 women: it is almost an Adamless Eden. They are getting to be so few that the thinning out can no longer be shown in round numbers. You know how it is when a woman sweeps: the center of the room is cleansed in broad strokes, but when she comes to the corners the strokes grow shorter, and less effective. Whisk, only 4.82 per cent. of men teachers in 1906; whisk again, only 4.74 per cent. in 1908; and so on, whisk, whisk, whisk; some of the pesky creatures will stick, but woman will get them all out in time, at least so that the room will seem clean.

Equally significant is the advance in the kinds of positions women teachers fill. Horace Mann said in 1840:

> Females are beginning to be employed in the winter schools. This practise is highly commended in some of the committee's reports: it is strongly discountenanced in others. . . . In very few instances, if in any, would it be prudent to employ a young female, for her first term, in a winter school. . . . But when the district is harmonious, and will frown into silence the slightest whisper of mutiny among the scholars, then a female will keep quite as good order as a man, at two-thirds of the expense.

Today of the principals of city schools 40 per cent. are women in St. Louis, 45 per cent. in New York and Chicago, 63 per cent. in Philadelphia. The city superintendent of the second largest city is a woman. Of the county superintendents of America, 300 are women; the proportion in Idaho is two-thirds, in Wyoming 90 per cent., in Montana all of them. Two State superintendents are women. A woman has been superintendent of Indian affairs.[1] Women were not made eligible to membership in the National Educational Association till 1866, but last year they took the bit in their teeth and ran away, smashing the carriage, and repeated the performance this year at San Francisco; like a young horse that has emerged from one escapade and learned his strength and the joys of kicking his heels in the air, they are never again to be trusted.

We have seen that Horace Mann's argument for women was clinched by the statement that they could be hired at two-thirds the expense. In this same report the Townsend committee state that in two districts "assistant female teachers were hired at from fifty cents to $1.50 per week."

Today the largest salary paid in the world to a public school teacher is paid to a woman. The action for equal salaries for men and women is universal. Such a law for New York City was past by the legislature of 1909, was past again over the mayor's veto, and was vetoed by the governor principally because it was class legislation. This year the women first reached the same result without legislation, by influence upon the home authorities, and then secured the legislation. The principle thus established is sure to spread.

The result will be to hasten the dislodging of the few men now left in inaccessible corners. The immediate working in New York is to make the salary of those entering the system, which had been $600 for women and $900 for men, $720 for both. But at $900 it had already become impossible to secure satisfactory men; how many are likely to present themselves at $720? Where men and women get the same salary and are equally eligible the men will vanish.

[1] *New England journal of education,* July 13, 1911.

This article is not a protest: it is a recognition of the inevitable. Unless some cataclysm occurs women are going to drive men out and control the schools. I purpose to consider some of the results to be expected.

I shall not speak of the masculine women teachers. They are an interesting type and at their best are pleasant people to meet. They are big, good-natured, shrewd, sympathetic in a way, but with no dem'd nonsense about them, who will often discipline with ease a school where very good men have failed. They get on especially well with boys and are popular in school and out. Some of them do enormous good in their localities, devoting themselves to their schools and their neighborhoods with all their heart and soul and mind and strength. But one never thinks of them as women except by accident; they are not in great proportion or typical. There are ways in which they are harmful, but I shall not consider them here. I speak of the typical feminine women. Beshrew the day when Olive Schreiner [2] makes her disappear.

As a rule, women teachers are admirable representatives of their sex. In spite of the present effort among colleges to turn their women graduates into other callings, teaching still gets the pick of women who must earn a living. I am tempted to say that a majority of the finest women in America today have at one time been teachers. It is an annual astonishment, like the opening of a chestnut burr, to see the charming young women who come out of the colleges and normal schools to seek places as teachers. They are in large proportion brimming with life, eager, hopeful, earnest, well-bred, conscientious, delightful. There are exceptions. Now and then a young woman gets into the work who is already soured: who is unsympathetic, sarcastic, pessimistic, teaching because the world owes her a living and this is the only way she sees to collect it. But as a rule the young women who enter upon teaching every year are a credit to their sex and their time. For reasons that I have already given in these pages,[3] teaching does not attract a correspondingly desirable proportion of

[2] *Woman and labor,* chapter v.

[3] Why teaching repels men, EDUCATIONAL REVIEW, April, 1908.

men graduates, so their extinction will not be of necessity any great loss in teaching power. Taking men and women as they run, the woman is quite as apt as the man to establish that connection between her mind and the child's which is the foundation of instruction. A president of an Iowa college, a superintendent of a Minnesota city, and a principal of a New York City high school have each told me independently and at intervals of years that the best teacher of Latin they ever saw was a woman now teaching in a Brooklyn high school.

There is still a difference in scholarship. The woman's ideal is not as high as the man's. At the ivy-day exercises at a woman's college some years ago, when we both had daughters participating, Professor Stoddard of New York University remarked to me: "What I like about this place is that it doesn't make the girls too damned learned." I wholly agreed with him. Learning in a woman as *a* charm is delightful; as *the* charm it is appalling.

> "But oh, ye lords of ladies intellectual,
> Inform us truly: have they not henpecked you all?"

Few women teachers are appalling. Women colleges have not the endowments or the traditions that compete with the best men's colleges for professors of a high type, and no girl begins to get the training her brother does from a coeducation university. The problem of the best education for a girl of bright mind has by no means been solved.

Still, modern women's scholarship answers pretty well for public school work, and it is often more intense than the man's upon the work of the day, more concentrated, more illustrated in her own mind by past successes and failures, more workable to immediate result. Besides, woman's education is growing broader. The Townsend girl who taught for half a dollar a week did not spend her summer vacation in Europe, but her modern sisters with salaries of from one to three thousand dollars go abroad quite as much as the men and profit as much by it. I do not fear for the instruction in these coming schools.

Nor do I fear for the discipline. Discipline is not a matter

of sex, as many a child knows whose father wears the trousers but whose mother rules the roost. Discipline is based on a definite and steady purpose, and this characterizes some most winning women. In fact that very adjective was once a participle; philosophers and poets agree that when a woman wills she will, you may depend on't.

Personally I agree with Professor O'Shea that in his early years the boy respects muscle more than he does kindness, gentleness, or any of the feminine virtues, and that many boys are going to the bad for lack of masculine vigor not too much represt.[4] Indeed, I am in full accord with Dr. G. Stanley Hall when he says that "devoted teachers often wear themselves out in coaxing, rewarding, and coquetting with parents to keep bad boys decent, when a single dose of Dr. Spankster's tonic would do the business with celerity and dispatch."[5]

Take, for instance, a type of boy, not in large percentage but that must be dealt with, the boy spoiled at home who has become sullen, surly, insolent. From my own limited but somewhat varied experience of six years in the schoolroom I became convinced that the two indispensable elements of punishment for such a boy are that it shall be instantaneous, and of a kind that can not be foretold. I was for a time a teacher in a military boarding school where it was part of my duty to stand at the head of the basement dining-room while the boys, as they past upstairs, paused to bow and ask to be excused. A new boy at his first breakfast saw fifty boys do this, and yet started to go by without bowing.

"Hold on," I said; "you have forgotten something."

"What?" he asked.

"When boys go by me they stop and bow and say, 'Please excuse me, Mr. Bardeen.'"

"I don't see any use in that," he muttered.

I have never known exactly what happened just then. I remember that I grabbed him by the coat collar and that he described several conic sections. I infer that eventually he

[4] *Wisconsin journal of education,* March, 1909.
[5] *World's work,* May, 1908.

revolved in one or more circles from the fact that when he finally landed it was on his feet in front of me. His struggles to regain his balance were complicated by his anxiety to bow without delay, and his "Please excuse me, Mr. Bardeen," was trembling but distinct. He never thereafter manifested lack of obedience or of respect.

If you should ask him today (he is a successful business man), I think he would tell you that no gentle admonition, no reasoning, no pleading, no reference to higher authority, no deprivation of privileges, no suspension, or expulsion, or commitment to a truant school, would have had the corrective effect of that fifteen seconds of unexpected punishment delivered on the instant, awakening his startled apprehension to the fact that there was such a thing as authority, and that insolence had its perils. I never had occasion to punish him again; I never punished any other boy that way; if the circumstances had varied I probably should have punished him some other way: but just at that moment that seemed to be the punishment to fit the crime, and it proved so.

The teacher should have sense and judgment, of course, or he should not be a teacher, but in dealing with boys he should be unhampered as to methods. Put down in regulations what will be the punishment of an offense and the boy will steel himself against it. Convince him that if he is insolent something will happen, sure and sudden but he can't tell what, and that kind of a boy will shrink from plunging into the unknown.

Such discipline of large boys is of course impossible to women. Unhappily it has become impossible to men. Some cities, some states forbid corporal punishment by statute; public sentiment is increasingly against it; even where it is permitted the courts will usually rule against the teacher who departs from the traditional ferule upon the palm of the hand. School discipline, like salaries, has been adjusted to women, and may as well be abandoned to them.

Nor do I fear that women will make mollycoddles of their children. In my experience I have not found women of the class who enter teaching to lack courage. They may shriek

at a mouse, but when they face real peril they are seldom found wanting. A few years ago a steamboat was burned on Cayuga Lake. The accounts of the affair placed as much emphasis on the coolness of the women, largely teachers, as upon the pusilanimity of the men. Last April a sleeping-car of Utica women teachers on an excursion to Washington over the Pennsylvania Railroad was derailed and took fire. The rescuers came to Eleanor E. Rutherford, her clothes burned off, naked on the ground, writhing in agony, dying; and she told them not to mind her but to look after her sister Carrie, who was less seriously hurt. That was not the fortitude in which we men magnanimously concede superiority: it was courage of the highest type; but we are not surprized to find it is a woman who shows it. Almost every week there is news of a fire, actual or threatened, in a school building. Over and over again, you read how the woman teacher in charge marshals her pupils and leads them all to safety without thought of panic. When have you read of a woman in charge of children who exhibited terror? Her thought is for her little ones. In the Collinwood disaster some of the teachers could have saved themselves, but their charred bones were found with their children's.

On December 12, 1895, I was sitting on the deck of *La Champagne* with a few persons, talking of the speed of the vessel, and I said to a girl of twenty in the group, who was crossing under my care: "It may seem heartless to say so, but if you should fall overboard I should not jump after you. The steamer would make a bluff of stopping and trying to rescue you, but it would be hopeless: before the engines could be reversed we should be a mile away."

"You think so," interposed a man in the party, "but if she really did fall overboard you would jump after her, useless as it might be. Your instinct would overcome your judgment."

The next morning about four o'clock I was awakened by a crash, followed by screams and shouts, and found a foot of water swirling into my cabin. Before I had accounted for it in my own mind the man who had been so sure I would

jump overboard came in drenched and declared we were going to the bottom. I got down my upper berth for him, gave him a dry nightshirt and some brandy, and since he was so scared, thought I had better go across the steamer to see how my charge was getting on.

"Don't go," pleaded my valorous companion, not wanting to be left alone; "she will be all right."

She was glad to see me and find out what it was all about, for the stewardess was screaming with hysterics in the ladies' cabin.

"It is only water that has broken in," I explained, "probably thru some unfastened porthole;" a guess that was accurate in kind but inadequate in scope; as a matter of fact, a tidal wave had burst in our companionway.

"And there is no danger?" she asked.

"Not the slightest. In mid-ocean there are only two dangers, fire and collision. This is neither. There is discomfort, but no danger."

"I believe you," she said simply, and never showed a sign of fear, tho at that moment the French sailors who were passing by to close a bulkhead were shouting, "*Nous sommes perdus! nous sommes perdus!*"

That seemed to me a remarkable exhibition of courage, but it did not surprize me that it appeared in a woman: it only gave me another evidence that this was a woman of high type. I have five children, two boys and three girls, none of them cowards; but when we were camping out and in the middle of the night a small hurricane sent the tent poles flying and threatened to crush us with falling trees before we could extricate ourselves, it was the youngest of them, five years old, a girl, who bethought herself to creep up to me and whisper in my ear: "I'm not afraid, papa."

Nor do women coddle those they love. "With your shield or on it," has been woman's injunction to man since wars began. Of all the qualities they idealize in us, courage is the one indispensable. Many a husband has been stimulated to bravado by fear of appearing cowardly before his wife. Many a man showed less courage in enlisting for the Civil War

than the mother or wife or sister who sent him. Every September mothers sit at home with blanched faces, knowing from the prattle of their little ones that a fist fight is impending, which they have not discouraged because they realize the struggle of life must begin on the playground. If the teacher has remained feminine and lovable, her older boys often constitute themselves *ex officio* her knights and defenders, a relation mutually delightful and healthful.

True, Dr. G. Stanley Hall has pointed [6] out that this relation is often romantic: indeed the marriage within the year of a Long Island village teacher of thirty-five to her pupil of eighteen indicates how often such a possibility is averted only thru the good sense of the teacher. It is of more importance that there is always in the relation of a boy to his woman teacher a certain condescension, the feeling of superiority of sex being more marked in the adolescent period than it will ever be again. But, taking it altogether, the fine women who as a whole make up our teaching force exert a healthful influence over their boys, and are successful disciplinarians.

II

So at first sight it would seem that feminization of the schools is not disastrous. But we have been talking of woman at her best, and early in our investigation we encounter a phenomenon. Woman reaches her zenith as a teacher at twenty-eight. If she is in, especially where there is tenure of office, she may stay on till she is an old woman, and usually not be got rid of then without pensioning; but when she is getting in, except in a few heavily responsible positions, every year above twenty-eight counts against her. Even for its teachers of teachers, in the normal schools, the state of New York makes twenty-eight the maximum age of employment, and will not appoint a woman over that age if the supply of those below is sufficient. Men reach their highest eligibility at forty. If we assume that each begins at twenty-two, the man's period of growth in desirability is eighteen years, three times that of the woman's. How does this happen?

[6] *Adolescence,* chapter ix.

In the first place, teaching wears on women more than upon men, for reasons that lie deep down in the distinction of the sexes. Woman's chief disadvantage is the fact that in every month there are one or two days when she ought to be in bed, and yet when she must be in her place: indeed when she usually feels obliged to be especially bright and energetic lest her condition should be manifest. This saps the life energy of every woman teaching in a public school. Business offices where women are permanently employed have found that it pays to have it understood that a woman may be occasionally absent for a day without telling why and without loss of pay. New York City used to have the same relief in view when its rules made concessions for occasional absence. Unfortunately, as Welland Hendrick pointed out in an address [7] before the Educational Council of the City of New York, women could not be depended upon to make of this privilege the use intended, but used it often for purposes more exhausting than their daily work. This sex limitation draws upon the woman's capital, and while she may endure it three or four years without apparent loss of vigor, in the end it often produces a nervous wreck. Lyman Best reports that of the 1,492 teachers who have thus far taken advantage of the New York City retirement law,[8] nine-tenths have done so not thru age or length of service but for physical or mental inefficiency, and two-fifths of the entire number from nervous breakdown.

Again, experienced boards of education have learned that there is another period, much longer and more trying, that occurs between forty and fifty, and that sometimes renders the best of women for a time impossible. Above twenty-eight not a long service is required to reach this period, the possibilities of which are portentous.

A third reason is also entirely one of sex. The women teachers of America are remarkably free from scandal. There is no other class equally exposed of whom the percentage who lay themselves open to criticism is so small. But there are few women of six years in a public school who have

[7] See *School bulletin* for September, 1908.

[8] *New England journal of education,* October 12, 1911.

escaped indignity. How many a woman who reads this can recall an angering familiarity of tone, perhaps of touch, when she has had to deal with men to secure election or to carry out some project. The very fact that when women teachers are spoken of in the newspapers, even in an Associated Press dispatch, they are called pretty teachers, till the adjective is no longer descriptive but denominational, like cold hot cockles, or white blackberries that are red when they are green, shows that in the public mind a woman is thought of first as a woman and only secondarily as a teacher. The saddest expression I know in literature is where the mother on her search for her daughter yields with hopeless indifference to every indignity, "*parceque la femme est l'instrument de plaisir.*" The young woman teacher soon learns that in dealing with public men she is likely to be lookt at coarsely as a possible instrument of pleasure, and is obliged to answer questions and listen to suggestions that are to her soul as loathsome as a grimy hand upon a fresh muslin gown. It is the experience of all unprotected women, and comes perhaps oftenest to the teacher because by her annual employment and her frequent need of equipment for her work she is oftenest obliged to ask favors of men.

No one will for a moment think that in so speaking I reflect upon the teacher. The woman teacher as a type is modest and self-respecting; I never have seen an indication of what may be called the cuddling habit so often manifest in the departments at Washington, where a woman snuggles up to the stranger she asks favors of as the natural introduction to a request. No, the reflection is entirely upon men of the coarser type, whose first thought of a woman is always as an animal. But public school teachers have to deal with this kind of men, and women are at a disadvantage, because when a man comes to such men to talk business they talk business, but when a woman comes to them to talk business they talk, if they are allowed, of her; in fact the average politician would feel that he lacked in chivalry, in what he would call "feeling for the sex," if he did not leer at her and pay her offensive compliments. This often produces in the teacher above twenty-

eight a pessimism, a contempt for mankind, that is not healthful, and that boards of education shrink from.

"But if all the teachers are women, this will be avoided," I am told. It is not the men teachers of the school that the teacher usually fears. Within the past year or so a school principal in the city of New York has been summarily dismist for kissing one of his teachers, and there was much outcry because another was only fined for the same offense; which shows that from her men associates the teacher has protection if she happens to need it, as is seldom the case. The famous statement which Henry Ward Beecher had to recant the next Sunday was that the women teachers were the mistresses of the politicians of Brooklyn, not of the principals.

Nor can this soiling be escaped by constituting boards of education entirely of women. In fact, the feminization of school boards has not proved successful. In the year when women were made eligible to serve on school boards in New York, chance happened to throw open so many vacancies that women came into control of the school board of Middletown; and it is worthy of remark that since the term of office of those women expired no woman has been elected to the place. Really eminent women have been appointed on the school board of New York City, but their action has been especially unsatisfactory to the women teachers of the city; if it were left to them, the women teachers would vote by large majority for a board of wholly men members, unless they could themselves select the women to be appointed.

A fourth disadvantage is the habit of aggressiveness which teachers of long experience are apt to acquire. It may be that women must fight for their own, that they must elbow and grab in order to get what belongs to them; but in doing it they make themselves unattractive. Many a man has felt mortified when he entered a restaurant with an advanced woman and saw another couple approaching a desired table and nearer to it, to have his companion rush ahead and seize the chair from under the nose of the woman about to sit.

Here let us be frank. This generation has inherited the notion that the earth belongs to man, and that woman is to

have what we voluntarily resign to her, in our own good time, on a silver platter. When she asks for something we are not yet ready to give up, insists upon it, grabs for it, and worst of all gets it, we feel a deep resentment, which we manifest chiefly by referring to her as the New Woman and refusing to give up our seat to her in the trolley car.

But after allowing for this personal equation, it must still be admitted that the grabbing woman has an exasperation peculiarly her own. There is a certain insolence in camping on the rights of others that seems purely feminine. Some men will read this who attended a game of baseball during the last meeting of the N. E. A. in Boston, where a woman who came late and was seated in a front box in the sun immediately raised her colored umbrella. This shut off the view of a dozen absolutely, made the view of two dozen more aggravatingly uncertain, and interfered with the view of a hundred; so her neighbors, first courteously, then with some emphasis, begged her to put it down. She did not listen to them. An usher came up and told her it was against the rules. No attention. He returned with one of the officers of the club, who pleaded with her but got only an icy stare. Then three officers of the club came to her and argued at some length. I could not hear what was said, but judged that her final reply was that it was sunny and she should protect herself. Finally some men evidently still higher up came to her and managed to persuade her to retire; whether they offered her a seat in some shaded box or threatened her arrest I don't know, but she went. For half an hour she had drawn away from the game the attention of an entire section. She was a well-gowned woman, unquestionably respectable, and from the deference shown her very likely a woman of social position, yet so long as she wanted her umbrella up it did not weigh with her that she was robbing a hundred people of the pleasure for which they had paid, and was making herself unpleasantly conspicuous.

I was crossing once to Havre, and rented a chair of the deck steward. It had been an easy voyage, with so much going on that I had used it little, but I had seen that it was

properly placed every morning. One day I had some reading to do, and went on deck immediately after breakfast, arranging my chair with some elaboration for a morning's work. Up came a woman whom I had happened to see sitting in my chair two or three times. "I beg your pardon," she said, looking at me impatiently, "you are sitting in my chair."

"There must be some mistake," I said, and I called the deck steward. "Will you tell this lady to whom this chair belongs?" I asked.

"The chair belongs to monsieur," he replied. "Monsieur paid for it and it bears his card. Madame has not engaged a chair. There are still some to be had."

I rose. "I only wanted to establish my right to the chair," I said; "I shall be very glad to relinquish it to you." *And she took it.*

There are not many women who would do that. There are some men who would do it. But the distinction is that a man who would do it would be a professional sneak, conscious that he had long ago lost all sense of honor and cared nothing how he secured a thing provided he got it; while this woman was a person of position, who thought highly of herself, who deplored that she had crost by a line which held no religious service on Sunday, and who lookt on the passengers who played ten francs limit in the smoking-room as brands already too far consumed to be plucked from the burning.

Between the acts I once stood at the rear of a Washington theater when I saw a woman make her way from an inside seat to the aisle with such a disregard for the discomfort she caused the people she past that I said to myself, "That must be Miss ——." She was too far away for me to see her face and I had not the slightest idea she was in Washington, but as she came out I found I was right. Her manner was more distinguishing than her appearance, and had grown more disagreeable every year she had been a teacher.

Then there is the influence of confirmed maidenhood. The old maidism of half a century ago is practically extinct. Where it persists it is as apt to be found in a man as in a woman,

and when in a man it is the more hopeless. The modern unmarried woman has most of the employments of man and many of his enjoyments—witness the delightful woman teachers club of Buffalo. It is no longer a reproach to be unmarried. All my life I have known more fine women than men fit to mate them. Alas, the fine men, already too few to go around, have often married inferior women. Till men are less vain, less susceptible to physical approach, less easily persuaded they have compromised a girl by attentions she has forced upon them, self-respecting women will be at a disadvantage beside their more eager sisters. Of these fine, self-respecting unmarried women a majority have taken up teaching, and they have glorified it, till today the teachers of America are the most admirable classified body of women in the world.

And yet the experienced board of education knows that many of its women teachers are unmarried for other reasons than self-respect, and that it wears upon them. After twenty-eight women have lost the confidence that they will some time marry. Even the right kind of woman does not fully develop until she marries. I would not engage a man thirty-five years old without an adequate explanation of his being single, but to a woman marriage is far more important; she must be wife and mother to realize her possibilities. Up to twenty-eight there is no special line of demarcation; that is a not uncommon time for marriage, perhaps as early as is wise in this complicated age. But from that time on the differentiation becomes apparent. The most desirable women for teachers are not only those who have a chance to marry but those who do marry.

This leads us to the familiar dilemma of the married woman. On the one hand, if she is happily married there is, or ought to be, always the prospect that she will become as women wish to be who love their lords. Not long ago the wife of a principal of a regents school in New York taught to within a few days of her confinement, and no problem of mensuration in school was so universal as that which drew inferences as to the probable date. On the other, to limit

employment, as in some cities, to those who have been separated from their husbands for two years, is to encourage estrangement. Apparently the only wholly satisfactory teacher is the widow: but we can not afford to start another war in order to afford a sufficient supply. Besides, the probability of marriage among widows is much greater than among spinsters. A maid does not always know how to encourage the advances of the other sex: a widow does.

It is the most serious disadvantage of women as teachers, that the more desirable they are, the more they contemplate a marriage which will take them out of teaching. Hence they can not give themselves to teaching with the whole-heartedness, the professional spirit, of the man who sees no other avenue to success. But when marriage is no longer probable the woman loses something of what she already has.

Frances Willard seems to me a type of the most admirable and the most successful of public women. She accomplished much, she was honored, she was loved; instead of losing her femininity she made it to the last a prime element of her power. When she published her autobiography I wrote a review of it that happened to please her; she thought I understood her in so many ways that she wanted to correct my misapprehension in some others, so when I was introduced to her she did me the honor to discuss with me at some length the book and her life. Near the end of the conversation I remarked: "Yet I have no doubt that all this success, so far as it is personal, you would gladly exchange to be a happy wife and mother." "Without a moment's hesitation," she replied, her eyes glistening.

If Frances Willard could admit that she had failed of what is best worth while in a woman's life, no living teacher need feel offended if I say that this consciousness of failure is a weight upon women who no longer hope. They are the wallflowers, the past-overs. If they will discuss the matter most of them will say: "It is simple enough: those who wanted me I didn't want, and those I wanted didn't want me." Most of them could at some period of their lives have married somebody. But it is wiser to marry nobody than a

nobody, and the kind of men they wanted chose other women, usually with good reason. Ask any superintendent which he would rather have for permanent teachers, the women who did marry during the first six years of teaching or the women who didn't. Unfortunately for teaching, the young men get the first choice, and they usually choose wisely. Of course this does not apply to you, dear sister, if a single one of your sex has had the patience to read thus far, but the board of education think it is true of the other teachers in your building.

Do I mean there are no admirable women who have made teaching a life work? On the contrary, I believe there is no other class of women of whom so many are admirable. We all know scores of women who have grown old in the schoolroom whom it is a delight to meet. But the proportion of admirable women is greater among those who have taught five years than among those who have taught ten or twenty or forty. It is not only that the more feminine have been selected out, but the tendency of those who settle down to teaching without hope of rescue is to lose the desire to be attractive. It is not an irresistible tendency, as so many charming teachers prove; it is probably not greater in teaching than in other occupations success in which does not depend upon woman's attractiveness, or where tenure of office removes its necessity.

But it is a tendency that boards of education have learned to recognize and to guard against. When a woman becomes barrel-shaped she cares more for comfort than for comeliness.

The other day I happened to be in a city classroom, the teacher of which I had known for thirty years. When she began teaching she was a charming girl, handsome, winsome, a delight to meet. Yet as I sat there during the change of classes this woman deliberately plunged her little finger into her left ear, dug with it, and in sight of her class examined the wax she had gathered and removed it upon a handkerchief. Loathsome to tell, you remark? Unquestionably, but what was it for her class to see, boys and girls who look upon their high school teachers as models of deportment? It was not that she did not know better. At twenty-five she

could not have conceived doing such a thing; she would have blusht at the thought of any one else's doing it. I could but reflect on the many, many steps of descent that woman had dropped from the day when every man she met was her admirer till now when she no longer attracted anybody, or cared whether she did or not so long as she drew her monthly pay and her place was secure under tenure-of-office rules.

Such women often become as careless of the good opinion of others in manners as in appearance. The disagreeable individual commonly called a "frank" man likes to relieve his mind, but is indifferent as to the effect on his hearers; a frank woman likes to see them squirm. Susan Wright was for many years principal of No. 50, New York City. She compelled her teachers to discard rings and jewelry and flowers in their bonnets, and to wear felt slippers. "The pupils moved about like wooden figures and teachers did not speak above whispers." Even Superintendent Jasper used to tiptoe as he past her door. The first time he was sent to her school by Superintendent Kiddle, instead of inviting him to the platform to conduct the opening exercises, "she directed him to a side seat, and read the opening chapter herself, which she selected, and preached a sermon for an hour, to which the school listened, about the spy that came to the land of Canaan to seek it out and report." That was funny. But when one sweet girl, living alone with her mother, was transferred to No. 50, and her former principal dropt in on Miss Wright to speak a kind word for the new teacher, the young woman was called up and lectured before the school and notified it would do her no good to send another to smoothe her way for her. Not long after the girl and her mother were found dead in their rooms together. That was tragic. Eventually the teachers rose in a body against Miss Wright and she was compelled to resign.[9] Yet in her beginning work Miss Wright was a successful teacher. The influence of her calling was disastrous upon her, and this is one of the evils boards of education seek to shun in appointing young teachers.

Such a woman is no longer a woman; she has lost the dis-

[9] *School,* June 18, 1908.

tinguishing characteristics of woman; she has become sexless. Of all the mischief such a woman can do in school, I am not sure it is not the worst that she puts such a type before her boys. It is recognized that for the girls of the school it is important to have teachers who are models of character and deportment: to choose first a woman, then a lady, then as much more as you can get. Of a woman who has taught for many years in Warren, Pa., more than one superintendent has said to me, "The board recognizes that it could afford to pay Miss —— a salary just to be in the school if she didn't teach a class, for the sake of her influence on the girls." But why specify the girls? Is it not equally important that the boys should have before their eyes a lovable type of womanhood? The boy's teacher should arouse his respect, his admiration, his chivalry. If she is one of these sexless mummies of women he acquires contempt for women as a class, the more so because under tenure of office and automatic promotion the longer she stays in school the higher the place she holds.

In a recent number of this journal Mrs. Porritt argues that women are unfitted to teach political responsibilities because not themselves voters. "What his teacher has told him is something entirely removed from life—beautiful and admirable, perhaps, but not adapted to a man's world and a man's activities." Professor Jensen [10] thinks that not even the suffrage will remove this disqualification. "Women are not naturally interested in civic affairs, and altho the franchise has been conferred upon women in our state, they seem to feel instinctively that their part in politics is merely to cast their ballots as conscience dictates. This interest is therefore passive rather than active. In fact, the aggressive woman politician is far from being held in high esteem, but is regarded as a person sadly out of her proper sphere. Such being the case, she is at a disadvantage in attempting to develop that aggressive civic virtue in the boys entering the adolescent period who are soon to be added to our citizenship, because they refuse to take their inspiration in the matter from a person

[10] *Utah educational review,* February, 1908.

whom they regard as being out of her legitimate sphere in civic or political affairs."

This is, however, only one illustration of woman's general disadvantage that she is not the one who does things. The boy will be far less imprest by the fact that she can not vote than by the fact that she can not throw a baseball. This last summer a suffragette went down into the hold of an Atlantic steamer to show that a woman could shovel coal into the furnaces, but she did not prove that women can rival men as stokers. Such attempts to show identity between man and woman demonstrate only woman's failure to grasp fundamental principles. The Amazon burned off one of her breasts so as not to have it in the way in battle, but the maiming did not become a sex-inheritance. It is only in a primitive civilization that woman does the hard physical work. Until reformers can change woman's stature and organs and disposition and make of man's better half an unrelated and unlovely hybrid, in all things physical man will be the doer, while woman encourages and comforts and counsels.

This brings us to the most serious difficulty of all, that a woman does not grasp what a man means by sense of honor. To women principles count for little when persons are involved. The famous democratic inquiry, "What is the constitution between friends?" could hardly be explained to a woman; she can not see where the joke comes in; why should the constitution interfere between friends? The National Educational Association had elected officers for fifty years by a method of procedure that had grown to be an institution, but when women failed by this method to elect a woman president they contemptuously cast it aside. I have often wondered how a woman of high type interprets the couplet,

> "I could not love thee, dear, so much
> Loved I not honor more."

A bright woman has an intellectual apprehension of the man's point of view, as a man has of woman's sacrifice for a person, but it seems to her so unreasonable. There are fathers, loving fathers, who have given up their sons to jus-

tice, but did you ever hear of a woman who would not rather consign law and justice and the entire structure of society to the demnition bowwows than that her son should be hanged? You who read this have varying opinions of Queen Elizabeth, but there is not one of you who suspects that the welfare of England beheaded her sister.

When Alexander Hamilton was secretary of the treasury letters of his to a well-known speculator were published which seemed to prove that he was using his position for personal gain. To defend his reputation for political probity he revealed the explanation of the letters in that he had conducted an intrigue with the speculator's wife. Is there a woman in the world who can comprehend that to Hamilton this seemed compulsion?

The distinction is embodied in our language. A man loses his honor when he breaks his word: a woman when she violates her chastity. Among the Romans, a warlike people, *virtus,* the man essence, was courage; in this commercial age it has become integrity: a man's word must be as good as his bond. Of the woman the demand is that when her husband looks at her children he shall know he is looking at his own. Many other things are desirable, but these are the two foundation stones.

Of course the lack of a sense of honor as a principle in women is not a deficiency: it is a difference. The corresponding quality in woman, the willingness to sacrifice the whole world, herself included, for the man or the child or the cause she loves, is as admirable and has been as important in the conservation of society. It does not mean that women are dishonest. As a publisher for forty years I have given credit to more than a hundred thousand teachers, and I have found a smaller percentage of women than of men unscrupulous in meeting their obligations. As a business man and an employer I have found them as trustworthy; of the five I should select from some hundreds as signally loyal, beyond what could be expected or paid for, three have been women.

But the point of view is different. At a recent meeting to glorify Miss Strachan for achieving equal pay, Mr. Hunter,

who presided, pointed to her as a woman of one idea, and added, "Beware of the woman of one idea." That exprest it exactly. Man sees an idea in its relation to the rest of the world, in perspective. Woman sees only the one idea, whether a person or a cause. Some of the noblest women I know are suffragists, and there is not one of them who when her opinion of a public man is asked will not state first his attitude on that subject and base the rest of her judgment on that fact. The modern English suffragette, for instance, thinks that the one end she has in view justifies the means, tho it involve the destruction of every law and principle of society and the conversion of women into a nuisance that every man loathes. As I write a new charter is threatened for the city of New York, the educational provisions of which are so contrary to judgment and experience that the protest of educational leaders is universal; seven thousand women teachers of the city signed a petition against it. But when the single sop was thrown out to women that it should give them equal salaries, the Interborough association not only supported this charter but sought to induce those who had signed the petition to withdraw their names. This is woman's idea of loyalty to principle. Where did Wordsworth get his ideal, of the perfect woman, nobly planned,

> "The reason firm, the temperate will"?

Men teachers are desirable in the education of girls, but in the education of boys they are indispensable. This is the day of laboratory method. I propose an experiment.

A and B have been friends, but A has what seems to him unquestionable evidence that B has wronged him. He seeks B out and points a pistol at his head. B says, "I see you mean to shoot and I can not prevent it. You are justified from your point of view and I can not change it. I acknowledge myself at this instant a dead man. But why bring scandal on both our families? Whatever you think of my conduct, you know my word is good. I promise to sail by a Saturday steamer and not to reach the other side. You will have taken my life, but only you and I will know it." A

consents and B sails. On the ship he discovers what had seemed the impossible: convincing proof of his innocence; proof that when placed before A, as it easily may be, will restore their friendship. Shall he still keep his promise?

I venture to say that if this situation is placed before the first twenty high-class men you meet, nineteen of them will reply: "Unquestionably; B was reprieved, not to exculpate himself, but upon his definite promise within a limited time to substitute another form of death for that impending at that instant. The maintenance of faith between man and man is more important than any individual life." I also venture to predict that put before any score of women all of them will exclaim, "What nonsense! Why, even A would rather B should live."

It would be a calamity for a generation of boys to grow up without the conviction that the most important of human obligations is the maintenance of faith between man and man. They will never acquire it from women.

So it is not well for woman to be alone in the schoolroom. Instead of grasping for equal pay and thus excluding men who can earn a living at anything else—witness the departments at Washington—she should encourage legislation which will attract men big enough, broad enough, generous enough to defer to the superiorities of woman and protect her limitations, so that our boys and girls may develop the courtly manners which were once the distinguishing mark of education, thru daily observing the punctilious courtesy which characterizes without clogging the comradeship of their men and women teachers.

C. W. Bardeen

Syracuse, N. Y.

III

AN OLD-TIME PEDAGOG

This morning in the barricade of mail which confronted me as I entered my office was a paper from the old home county in the old home state. I always experience a peculiar thrill at sight of the familiar names, and I hastily tore off the wrapper, wondering who had remembered me with a paper, and what piece of news would please or startle me. I hurriedly glanced down the column for a marked item, and found a short notice recording the death of a man who, alternating with the woman teacher in the summer, conducted the winter term of school in the country district of my boyhood's home.

I had not seen this man for thirty or more years, had not even heard his name mentioned for perhaps half that time. For many years I had not known if he were living or dead. What could it mean particularly to me the death of a man so long since dropt out of my life, and so far away—and yet what emotions of love, of gratitude, of reverence, yea, of sacred veneration that name calls forth! Not a name of a high official of the nation could suggest so much to me. What power in that simple obituary of not more than fifteen or twenty lines, of taking me away from the present and transporting me to scenes far distant in time and space.

Counting-house, letters, orders, bills payable, and bills receivable are all forgotten, and I am back again in the little country schoolhouse, and that man stands before me my childhood's ideal of manly accomplishments and scholarly attainments. I can see him now as plainly as tho I had but just heard his "school is dismist." He is standing behind the battered old desk, his form silhouetted against the bepenciled, bespattered, dingy gray wall, his black-and-white checked flannel shirt sleeves forming acute angles each side of his

robust body. Like the bully beginning a fight, he always removed his coat when he entered the schoolroom, as tho he must be unhampered for his mental and physical athletics, and a habit he had of frequently pushing back the cuffs of his checked flannel shirt sleeves, heightened the impression of constantly preparing for a struggle. But his face was bright and sunny, no suggestion of a fight there, except on rare occasions when physical force was necessary to maintain the discipline of the school, when his courage and resolution were not wanting.

A middle-aged man I suppose I must call him, yes, in view of my present attainments, I must even say a youngerly man —the notice says, "aged eighty-two"—why, I could have sworn he was an old man when I first saw him forty odd years ago. His hair and beard were slightly grizzled, and his keen black eyes could look not only thru a boy, but thru the years into a boy's future.

And what a sight met your eyes, dear old teacher, when you stood behind that desk for the first time; did not even your intrepid heart quail?—the poor old schoolhouse, the well-worn floors, the red-hot stove, the jack-knife-carved, ink-stained desks, the seats out of all proportion to the occupants, so that the smaller ones had to swing their benumbed feet and could barely reach the desks with their chins at "copy-book" time, and the largest ones sprawled their six feet of anatomy over seat and desk into the neighboring aisle; the forty or fifty "scholars" (we were all scholars in those days) of various ages, conditions of previous instruction, and degrees of cerebral convolutions, crowded in three in a seat, with a reserve force on the backless plank recitation bench, whose privilege it was to occupy the vacant territory whenever a class recitation called for a general charge to the front. Did not even your military prowess tremble at the undertaking of disposing of those squads of three in a seat, so that their energies might be directed against the enemy and not expended upon themselves?

What maneuvering to dispose of the large and the small, the timid and the bold, the keen and the dull, the studious

and the playful, the angelic and the vicious, only you, dear teacher, could have known. I can only judge by my own situation, separated on the one side from the teasing bully of whom I was afraid, and on the other from the small boy of my own age with whom I might have been tempted to swap jack-knives or to share surreptitious bites of clandestine pippins.

And your equipment! Not the Helot adherents of a Highland clan going out to battle for "The Pretender" armed with pole-axes, scythes, and bludgeons could have been more poorly furnished for the object before them than were you. There was about a square yard of blackboard, really a black board, and never a map, nor a chart, nor a globe, nor a dictionary, and scarcely two books alike in the whole school. The new schoolhouse, the graduated seats, the uniform textbooks, the school library, the helpful paraphernalia of a progressive school—all these things came later; yours was the transition period, dear old teacher, and yours the task of pointing out the way, of inspiring not only the school but the entire neighborhood with a desire for better things, of creating a noble discontent, of establishing higher ideals.

I can see the long reading class and the longer spelling class. We were never too old to read and spell in that school, and the "first class in spelling" often occupied one entire side of the schoolroom, and turning the corner, went part way down the end. Don't I remember the day when Flossie went above me. The word had come down from the head and I was number thirteen and she was just below me. I never had the comforting words of sorrow and love over the matter, as did the little boy in Whittier's poem; but then, in those days, I would have mist a word any day to help Flossie get one more head mark.

Yes, Flossie went above me, and she kept on going above me, even after I could not help her to any more head marks. Oh, Billy, do you remember my one triumph? She wore my ring for a whole month. Your ring was but the brass ring that came with a five-cent package of candy, while mine was a coral ring and cost ten cents, the dime Uncle John gave me

to do as I pleased with. She scorned *your* ring then and wore *mine*.

Learning came by main strength in those days. There was no labor-saving machinery, no work that was play, and play that was work. There were no easy methods, no royal roads. We began with the letters, wrestling with each one by name, spelled out our words in the primer, performed prodigious stunts in mental arithmetic, and committed long lists of jaw-breaking names in geography. "Parsing" and "ciphering" were our daily food, and reading, writing, and spelling as vital as our breath. The process had its decorative side also, for we recited the states and capitals in rhythmic measure, sang our multiplication tables, read in concert or chase, spelled down, and reveled in frequent "declamation days" and "school exhibitions."

Without sufficient blackboard where the teacher or the smartest scholars could demonstrate the problems and make them easy for the rest of the class, we were put upon our own resources and urged to work things out for ourselves. Do you remember, Billy, how our teacher encouraged us in our self-appointed task to "cipher" thru the "practical arithmetic" without help? How we worked and went after those "examples" with pickaxe and spade! And don't you remember the one we could not do, on the left-hand side, the second page of miscellaneous problems? The physiognomy of that problem is burned into my memory, and I should recognize its features if I saw it with an Egyptian mummy. It might as well have been Egyptian hieroglyphics for its blankness to our understanding that winter, and we did not get the right answer. How I worked on that problem daytime and night-time, school time and home time, work time and play time—I had almost said supper time and story time, but I never could quite do that—my special incentive, not so much, perhaps, to reach "learning's dizzy heights" as to get it ahead of Billy; but I never could get ahead of Billy. But that problem that I did not get, that total failure then, I count now as the corner stone of my education, the foundation of what little success in life I have attained. The determination to never give up,

to keep digging away, developed then, has served me well in many a hard place since. I should be glad to know the psychological process by which, a few years later, when that same problem was handed in as a special test for my class in high school, it should suddenly become as clear as daylight, and its solution mere child's play. Had my mind been unconsciously working on it during those years?

In the light of modern educational systems, the methods then were very crude. We never heard of marks, nor crammed for examinations, nor even saw a certificate of promotion. We never knew, poor things, when we past from one grade to another, any more than we ever knew the precise moment when we ceased to be boys and became men. Of course it was absurd and entirely unnecessary to commence at the beginning of each book on the first day of school, and stay in the same book until we could make it in a term, and yet, since Billy has "Judge" prefixt to his name, and Charlie B—— is called "Doctor," I have wondered if that thoroness in "ganging over the fundamentals," as the Scotch say, was ever amiss. Whatever we did not have in the way of methods and instruction, we were taught to think and reason for ourselves. Can the modern system do a greater thing?

And you, gentle teacher, moved about among your flock with a noiseless tread, giving a little needed assistance here, working a problem there, encouraging another to independent thinking, hearing a lesson in an odd book,—and sometimes not so gentle when an illustration of direct discipline was needed. And when the hum of the work was the loudest and our minds the dullest and our neighbor's elbow most obtrusive, then would our teacher square himself for a story; we knew what that meant, and you could hear a pin drop in the room. And such stories! Ah! he knew the value of the concrete. He never dealt in theories and precepts and platitudes in giving us lessons in morals and manners, but always gave us the individual illustration. There was a story to meet every condition and every emergency, from his seemingly unlimited source of experience and observation. The ultimate triumph of the brave, honest, worthy effort, and the confusion

and defeat of ignorance, cowardice, and sloth were favorite themes. And then there were the stories from history and literature, for didn't he come from Cooperstown, New York, and wasn't he acquainted with the family and traditions of James Fenimore Cooper, after whom the town was named? Oh, but we never tired of hearing of Cooper, and he became our boyhood's hero. How we longed to have his Indian tales to read, but books were scarce, there was no public library, and not a Cooper book in the neighborhood; so we had to be content with the stories our teacher told us. You may prefer to call this the lecture method of instruction, but we thought they were jolly, rollicking, inspiring stories, such as made our minds quicken and our spirits soar.

What inspiration for our work came with the singing! Didn't we come out lustily on "Be merry and glad" with Mr. K——'s fine tenor voice leading? and didn't his happy face and cheery optimism (we did not know that word then) help us to keep that precept? And when Johnnie Briter on the back seat, threw back his head and led off with, "On Jordan's stormy banks I stand," we could convince the passers-by not only that "There will be no more sorrow there," but that there was no more sorrow in our midst at that precise moment.

Oh, for one moment more of the ecstasy of our play, in which our teacher encouraged us quite as much as in our studies,—the "hi spy," and "prison gool," the pon pon pull-away, and fox and geese, the coasting and skating on the lake near by,—it makes my blood tingle to think about it now. And the stormy days, when we spent the recess and noonings inside, and played charades and dominoes, and ate our lunches around the red-hot stove, and counted apple seeds and cracked nuts. O steam-heated urchins of the present day, what can you know of the bliss of sitting around the acorn stove and cracking hickory nuts on the huge blocks of beech and maple wood, whose mates the big boys have tumbled into the cavernous mouth of the stove, where the voiceful crackling and snapping keeps time to the merry beating of your own hearts!

And the walk to school, and the paths thru the snow or over the crusted drifts, which were Rockies or Andes or Alps to our childish imagination; and the places where we tunneled thru, and the sudden heavy snowstorms when we literally waded to our chins before the teams got out to break the roads. I can see every shrub and tree and building along the way,—the high "balm of Gilead" tree on the hill which marked the halfway point where we loved to linger, the trim little oak tree which some lawless woodman on his way home from work had half cut down. How we mourned over our oak-tree friend and nursed its wound, and eagerly watched its recovery. *You* would have found a simile, here, dear teacher, to illustrate the wounds of character. It took long years to heal our little oak tree, and the *scar* was always there.

And the boarding around, the teacher's company home, and the roast pork and mince pie for supper; the visits with father and mother in the evening with the circle of younger, silent, attentive listeners, and the stories, always more stories for our hungry ears and hearts. It was holiday every day, the week the teacher came to board.

The physical and mental endurance of the man who could board around in the primitive country neighborhood, is beyond comprehension at the present time, but oh, the joy to us youngsters, and the possibilities for the teacher to know the heredity, inclinations, temptations, trials, joys, and encouragements of the pupils!

He had taught for ninety-nine terms, the notice says—ninety-nine terms of disciplining and training crude, untutored minds, of civilizing intellectual barbarism, of meeting difficulties with contagious cheerfulness; ninety-nine terms of acting the apostle of progress, of ever hoping and aspiring and reaching for better things, of pushing ahead yourself in the path you would have your pupils tread; ninety-nine terms of testing the various hardships of the neighborhood, the larder and culinary skill of its numerous cooks, and the degrees of frigidity of its "spare" beds,—and keeping your courage and sanity to the last!

Dear old teacher, I should love to give you a noble tribute,

to write you a fitting memorial, to build you a lasting monument. To such as you more than to our statesmen and soldiers, our nation owes its greatness, for such as you deal with the foundations which make for patriotism and good citizenship, which become the bulwarks of the nation. Your monument exists in the hearts and in the lives of the hundreds, nay the thousands of boys and girls whom your influence has touched, and thru them in the very corner stones of the commonwealth.

O modern pedagog, could you go into a schoolroom with forty or fifty pupils of all sizes from the a b c-darian to the six-foot wood chopper, with no further equipment than books of every "race, color, and previous condition of servitude," with no grading, no system, no discipline, with inadequate seating, heating, and ventilating facilities, and bring order out of chaos, discipline out of confusion, studious attention out of indifference, and *teach* that conglomerate mass, really *educate—lead out* the individual mind and character, inspire your pupils with high purposes of mental and moral attainments, infuse into their characters noble ideals of life and its meaning,—could you thus serve not only the school but the entire community, yourself its mediator, peacemaker, entertainer, dictionary, encyclopedia, bureau of information, lecture committee, and civic improvement committee—the generalissimo of its local affairs—your domicile the homes of the community, your fare as varied as the habits, temper, and resources of their mistresses, your quarters of changing degrees of comfort and sanitation—could you do all this and go serenely on, and keep sweet and sing "Be merry and glad" for ninety-nine terms? If so, you are worthy to have your name placed beside that of my old-time pedagog.

Farewell, dear old teacher! the "last day" exercises are over, the "reward of merit" cards have been distributed, the sun is sinking low in the west, the shadows are creeping on, and I hear you say, "the school is out." Yours is the rest and peace of the long vacation, while I am trudging homeward past the balm of Gilead tree.

Ada Simpson Sherwood

Oberlin, Ohio

IV

SCHOOLS FOR DEFECTIVE CHILDREN IN EUROPE[1]

Having been appointed by our school board to make a tour of inspection to the European institutions for the education of defective children, it may be of interest to other school boards and educators to read some of my experiences.

Were I to relate in detail what I saw in the different schools, it would make a very lengthy and uninteresting article; therefore, I shall generalize and mention only the things that appealed to me as worthy of consideration.

I should not like to have it understood that I think any one system is perfect or that the adoption of one or the other as a whole would be to our advantage. This is not the case; but, in each place, I saw something worthy of attention and, perhaps, of imitation.

Some things that we are just beginning to realize as essential are firmly established in all the countries I visited. The most important of these is that every child must be placed where he belongs, and where he can be trained so that he will be able to lead the most useful existence possible. The bright pupils should not be placed with the dull ones to discourage the latter, or *vice versa,* to be dragged down by them.

PLACE CHILD WHERE HE BELONGS

This can easily be done in countries where the children of well-to-do and intelligent parents pay tuition. There, greater demand can be made upon the child and the curriculum may be broader. It stands to reason that, generally speaking, the child of professional and intelligent parents is able to un-

[1] From the report to the school board of Frances Wettstein, principal of the Milwaukee Day School for the Deaf.

derstand a science at an earlier age than the child of ignorant parents. In a democratic country, it seems to me, schools could be so arranged that, in a district where intelligent people reside, a foreign language and a science could be placed in the curriculum; while in districts where the great majority are foreigners, more time could be devoted to English, for the lack of a good command of English is the drawback to the average young man or woman of foreign parentage.

I realize that this classification is a difficult problem to adjust to our conditions, but we ought not to depreciate its importance, and perhaps some one wiser than myself will be able to suggest a good plan by which the curriculum could be enriched for the brightest ones and curtailed and made more practical for the duller ones. This would include more systematic technical training between the ages of thirteen and sixteen.

SPECIAL CLASSES

Classes for special children are established almost everywhere. In New York I visited a class for foreigners. For these a special course in English is prepared, and, after three or four months' work in language, the pupils are ready to take their places in their regular grades.

The above are problems easily disposed of, but the following are of greater psychological interest and more difficult to solve.

BACKWARD CHILDREN

After a child has been in school for one year and has failed, he is examined by eye, ear, and nerve specialists, and the cause for his retardation determined. If it is caused by defective eyesight, proper glasses are provided; if parents are unable, the community provides them. If the sight is very defective, pupils are sent to the classes for blind children. The only difficulty here is the transportation. In London, the city pays the carfare and also pays a friend or neighbor a small compensation for bringing the child to school.

Where the specialists find that the defect is mental or

nervous, the children are sent to a school for backward children. These are graded into primary, intermediate, and advanced classes. As a rule, some children with defective speech are found among these, therefore articulation teachers are employed. For these nervous children special rooms called "veranda rooms" are provided. Here, when the weather permits, the windows can be so opened that the pupils practically do the work out of doors.

The diet is prescribed by the neurologist; milk at recess, and a hearty meal at noon are provided by the city; the breakfast and supper by the parents. Gymnastics are given by one who understands corrective work. Baths are of vital importance, and arrangements are such that they can be given according to the directions of the specialist. In the best school of this kind that I visited, the children, according to their needs, are given massage, electrical treatment, color and sun baths. All the care given under the direction of the physician. In order to make these children as useful as possible and no burden to the community after they grow up, they are taught a trade, and the foundation for this is laid when they are about thirteen. This is done systematically and thoroly. Those children who are so weak that they would under all circumstances, if they remained among normal people, become a menace to the community, are sent to permanent homes.

GARDENING

In these schools for the backward and also in the disciplinary schools much time and great care are bestowed upon the gardens. The work in the garden not only benefits the child physically, but it has a wholesome effect upon the mind, and elevates his thoughts.

In disciplinary schools it is given as a preventive to evil thoughts, for if the child becomes physically tired in the open air he will fall asleep when he touches the pillow, and consequently have no time for the planning of unwholesome deeds. And, last but not least, the economic value is taken into consideration. This department, as a rule, is in charge of an

expert; the fertilization of the land, cross-fertilization of plants, the commercial and hygienic value of each product being observed and discust. There was no haphazard teaching, but valuable and systematic instruction given wherever I saw these school gardens.

SCHOOL FOR CRIPPLES

Near the school for backward children is usually found the school for cripples, for the physical care of these is somewhat like that given to the backward. Those who have malformation of the organs of speech are operated upon, provided with artificial palate, teeth, or whatever they may need; adjustable chairs, braces, wheel chairs, crutches, etc., all these are provided at the expense of the state, if necessary. The primary object in all these schools is to make each person self-supporting, and therefore the learning of some trade is the important end they seek to achieve.

DEFECTIVE HEARING

According to the Betzhold method of testing the hearing, it can be very definitely determined whether a child has enough hearing to profitably attend school with those who have absolutely normal hearing. Great care is taken in testing the hearing, and only a specialist of the highest rank has charge of this. I witnest a test of this kind which took at least two hours, but at the end of that time the teacher was informed which elements the child could hear. The result was gained by striking tuning forks attuned to a certain tone in the musical scale. The aurist made his deductions from the knowledge he possest as to which tone the different elements would respond. It was very complicated, and I, more than ever, realize how important it is to have a specialist test the hearing of the pupils in the public schools, and especially in the school for the deaf.

In large cities there are separate schools or classes in different parts of the city for those with slight defective hearing

and for those who lost their hearing after they had acquired language.

Then there are the regular schools for the deaf for those of average intelligence and for those who are somewhat below the average in mental ability. The pupils in all these schools are taught by the oral method, and live either at home or are boarded out in families. The communities in which the children reside are compelled by law to provide for the maintenance of such children whose parents are unable to do so.

HIGHER EDUCATION

In no country that I have visited has the intelligent and bright deaf person such an opportunity to develop mentally and to gain a higher education than in America. I think this is a conservative statement, tho it may be termed extravagant and boastful by my foreign colleagues. However, it is my honest opinion, and I can not see it otherwise.

Every principal or superintendent advanced the opinion that, in order to fit the boy or girl for life among the hearing, he ought to learn his trade or gain his higher education with hearing people. Therefore, when conditions will permit, pupils should continue their higher education in the high schools or trade schools with hearing boys and girls. As some will always be among these who are not self-assertive, but timid, it is advisable to have a teacher at the school whose duty it is to give them such attention and special help as are needed.[2]

INDUSTRIAL EDUCATION

In Germany, Norway, and Denmark the apprentice system is still in vogue, and the boy is compelled by law to attend the common evening or continuation school while he is learning a trade. These continuation schools are technical or trade schools for boys and girls, and are in session from four until eight o'clock. The academic work with the deaf is given by specialists. A boy or a girl at the age of sixteen or seventeen, when he is still willing to begin at the foot of the ladder, is

[2] This has been introduced in our Milwaukee schools.

equipped to pursue, not a brilliant career, but one that will make him a self-respecting citizen.

In England the factory has superseded the master's workshop and the apprentice system, and, consequently, it is difficult to find good positions for the deaf who have not learned a trade. As a result of this, trade schools for deaf girls and trade schools for deaf boys have been established. When the boys and girls reach the age of thirteen they attend these schools. Here they choose a trade and are made skilled laborers. This seems too ironclad for this country, for the bright boys and girls and those of wealthy parents would want to gain a higher education than this permits. But the plan appeals to me for the slow ones, of which there are a great many.

After a child has reached the age of fourteen, or the sixth grade, according to conditions, the child should select a trade, and work at that at least three or four hours the same number of days in a week. This would extend his day's work, but, considering the age of the pupil and that so many go to work at that time, the hours do not seem too long. The health of pupils has not suffered where this system has been tried. In fact, the great governing principle of men who have had the most valuable experience with boys and girls is to keep them busy, and, consequently, evil thoughts will not be engendered. Variety of work—mental and industrial—with plenty of physical exercise, especially in the open air, seems to be one of the great curatives for many of the evils among young people.

If, in a city, one central trade school for all defective children were established, it would not involve a great expense. At least it would be money well invested; far better than, if later, it would have to be invested in reformatories and industrial schools.

RESIDENTIAL SCHOOLS

The feeble-minded deaf are placed in residential or home schools, and taught by whichever method they can be reached best.

Before the child is sent to such a school, he must have been under instruction in an oral school for at least two years; must have been examined by the medical specialist; and then only upon the recommendation of this specialist, the inspector of schools for the deaf, and the principal of the school where the child has attended can a child be committed to such a school.

The residential schools or institutions are for those—either the deaf, the feeble-minded, or the crippled—who will always be dependent upon the state for support. These schools are considered permanent homes. The end in view in training these children is to enable them to produce articles which are of the most economic value, so that the burden to the state is limited. Doing something to earn a living gives these unfortunate ones self-respect and makes them happy. Some beautiful work was made in some of the schools for the feeble-minded and for the cripples. One girl *without arms* made beautiful embroidery;[3] others made fancy rugs or curtains, dresses, and garments of all kinds; boys made brushes, caned chairs, made and finished furniture, made blankets, hammocks, and a great variety of articles—everything was finished without a flaw. All these articles command a good price. At one home the inmates are experts at laundry work, the ironing being done to perfection. This home is almost self-supporting, as the work is in great demand.

It is very evident that if such a home were carefully planned, it would not require very much help from the state. For economy's sake, a home for cripples might be combined with that for the feeble-minded—not on the large institution plan—but on the small cottage or home plan, where each family of fifteen boys or girls would live in a cottage with a supervisor at the head.

BOARDING OUT AND COTTAGE PLAN

The "boarding out system" and the "cottage plan" to replace the large institution deserves more than a passing

[3] A special machine, reaching up to the mouth, was invented for this girl. She works with her teeth. I have some beautiful specimens of her work.

thought from all educators; especially from those who are interested in orphans, waifs, and the destitute.

If a man or a woman is to cope with life, he must be trained with that end in view. Home life is a great factor in the training of character, and sound and good character must be the foundation of a prosperous nation. These are principles acknowledged by the majority of educators in Europe. That the result desired can not be obtained in large institutions is realized.

A French priest, the head master of a boys' school, admitted to me that 90 per cent. of the boys and girls who were not prepared for life were those from convent or institutional schools, and that the government was justified in abolishing them, as it had done.

With a very few exceptions, all the pupils in schools for the deaf in Germany, Denmark, and Norway, are boarded out in homes, two or three pupils living with foster parents selected by educational commissioners. The pupils who are kept in the institutions are a few delicate or delinquent ones who need special care or training.

Perhaps the best examples of the "cottage system" we may find in Dr. Barnardo's homes for dependent children in England and the Parental School in Hamburg.[4] Wherever possible—that is, where the child is healthy and of sound moral character—he is boarded out. This is considered the most economical and most natural way of dealing with orphans and dependent children.

Those children who need special training and supervision are taken into the different cottages. Each family of ten or fifteen girls or boys lives in a neat little cottage supervised by a "mother" or "brother." There the ten live together as they would in a family; each one has his home duties to perform, and the home feeling is fostered. There is a common school, assembly hall, and shops where all congregate at certain times.

[4] "Rauhe Haus," commenced in a little wooden shanty, is now a large village. The Barnardo Homes, London, commenced in a small donkey stable, have now a large village for boys, one for girls, naval schools, branches all over London, in Canada, and in British colonies.

Each child learns a trade for which he is best fitted. Girls are taught housekeeping—a good household school being one of the best equipped departments—dressmaking, millinery, hand-sewing, lace-making, or whatever each one may wish. The boys become bakers, brush makers, blacksmiths, tailors, shoemakers, carpenters, wheelwrights, printers, etc.

When the boys go to work they still make these homes their residence until they are twenty-one years of age. They are permitted to handle part of the money they earn—enough to clothe themselves and have a little spending money besides; but something is laid aside to their account so that, when they leave the home, they have at least a small fund in the bank with which to begin their independent life. This is absolutely wholesome and natural training, and it appeals to me as a good system to be adopted by our states in dealing with the defective and dependent classes.

COMPULSORY EDUCATION

All over Europe the police and courts are held in great respect; if a law exists it is easy to enforce it, for the people are well disciplined and obey meekly. Therefore there is no trouble in enforcing the compulsory education law for the deaf. The police, clergymen, and priests all assist the truant inspector. I fear, until we have the full cooperation of all teachers, clergymen, and priests in the parochial as well as in the public schools, many of our defective children will lose precious years of their school life.

Our compulsory education law regarding the deaf is weak, inasmuch as it does not provide for the indigent children who live away from an established school. Where possible, the children should be boarded in families and the communities in which they reside be compelled to pay for their maintenance. Or, where it would be difficult to secure proper families, a cottage might be built for eight or ten children, a competent matron appointed, and the principles of the late Dr. Barnardo applied.

The English law is the most complete in this respect, and

we should benefit if our law were amended along the same lines.

PHYSICAL CARE

As to the schools in general, that which imprest me most forcibly was the physical care of the children. Everywhere, with the exception of the slums in England, the children were such sturdy, chubby, rosy little things. Boys and girls entered with such vim and vigor into the spirit of all games and gymnastics. There were no tired and drawn little faces and no languid ones. It was truly charming and delightful to see.

I can not recollect that there was one school without a gymnasium and out-of-door apparatus. A great deal of attention is paid to gymnastics, which is one of the essentials. In most cases half an hour three or four times a week is given up to physical exercise. Then there are the short recesses of ten minutes every hour and a long recess of twenty minutes. In some cities in Germany, when the weather permits, children must take half a day a week out in the open field or public playground. There are open verandas where the little folks in the kindergarten, even on rainy days, do their table work and play their games.

The correct position for each exercise in manual training is observed and insisted upon, and charts illustrating the correct position are hung in nearly every manual training room.

The children eat often, and, if they are not able to provide the food themselves, it is provided from the city fund. In some schools milk is served every day during the long recess, and at noon a regular dinner is served.

Bathing and swimming are also essentials. Where there are no swimming pools in the schools pupils are sent to the public natatoria. A swimming master is employed and life-saving taught. I saw some veritable feats in this line.

In some institutions sanitary towels are used. After having been used once they are thrown away. It is quite an unheard-of thing to have two children use the same towel. The towels and cups are arranged neatly, but each child has his

own. In Berlin especially everything is exceedingly clean and hygienic; for instance, in the City Home for the Homeless each person receives a clean towel every day; 40,000 towels and 750,000 pieces of linen, sheets, coverlets, etc., are washt every day. The windows are cleaned each day and forty men are employed to keep the building clean. Each blanket is disinfected every day. If children are indisposed and stay in a room during the day, they must sleep in another room at night.

In certain cities in Prussia each school is supplied with a case containing absorbent cotton, disinfectants, and common household remedies needed in case of sickness or accident. Each teacher must have a practical knowledge of what to do in cases of emergency, such as fainting, burns, bruises, or accidents of any kind.

It seems to me, if the students in our normal schools were given a more practical knowledge of the studies they are supposed to teach, some of the problems in hygiene and nature work might be solved more easily.

In connection with some kindergartens are cribs or day nurseries, where the little fellows are kept in the afternoon and usefully employed. Here there are portable wire cots, where the little ones can take their afternoon nap.

In order to instil the sentiment for home life into the children, these kindergartens are arranged on the family plan. Each little family has its own room in which it lives, eats, and works. The children do everything that is required for their well-being in their everyday home life.

Children with any tubercular trouble have their instruction entirely out of doors—in the woods.

In Germany life is recognized as valuable, therefore the boys are reared carefully to be used in the army and the girls are given every aid to grow up strong and healthy to be able to rear these boys.

TEACHERS

I can not close without saying a few words in behalf of the teachers in general. In no country are teachers required

to teach so many different branches as in our own, and nowhere are they so overworked. In European schools they teach a certain number of hours in a week, and then their work is finished, tho some specialist may take the pupils and continue to work with them.

In large schools a drawing master is employed for one or probably for two or three schools. The manual training is always in charge of one especially fitted to do the work. It seemed to me that everywhere, considering the work of the whole classes, the children are trained to do more careful, exact, and painstaking work than children in America, and it was easy to see the systematic steps that were taken to complete the whole. This can be done only when the teacher has been especially trained in his line of work. It is absolutely impossible that all teachers should be able to sing well, draw well, sew well, work in wood, give gymnastics, and be up in all academical work. Something must suffer.

Another point is this: All teachers are pensioned. Upon the whole, they receive about the salary of the average American teacher, but in addition to this they are certain of something when they are disabled. In England they receive less in the way of pensions than on the Continent, but still it is something. What is the result? The finest men in the community enter the profession. In Denmark the law has been so amended that an incompetent teacher can be dismissed at any time, but after having taught a certain number of years, if dismissed, he gets a certain per cent. of the pension. This guards the schools against those who might not continue to do their duty or fail to progress, for the schools must be guarded; but, certainly, their interests are upheld by treating the teachers well.

I saw much fine and excellent teaching. The teachers not only listened to recitations, but taught. It was downright good teaching by men and women who had made teaching their life work.

Unless we draw the best material into our fold, and do not make them incompetent and unfit for skilled work at

an early age by overtaxing them, we can never hope to reach the highest excellence in our education work.

EXPENSE

In England the rate system exists; that is, for every pound (approximately for every $5.00) a person possesses he must pay 1s. 6d. (equals 35 cents) toward education. The English think Americans do not spend enough. If it is necessary to spend more money on education they should do it, and in the mind of one who comes back to this country and sees the wealth here as compared to that in the Old World, there is no doubt but that America can do it. That she should not lead in such important work as the training of the children because of the lack of money is a matter even not worthy of discussion.

I was received everywhere with the utmost courtesy, for which due and grateful acknowledgment is here made.

Carl T. Wettstein

Milwaukee, Wis.

V

COLLEGES AND SCHOLARSHIP

The American college has recently come in for a large share of attention on the part of its critics. Not only has the yellow press manufactured sensational charges which have been for the most part elaborations of the obvious, and which will not damage the reputation of the college in the eyes of thoughtful people, but more competent and serious students of educational problems have felt free to pass criticisms, the force of which have been felt by all. It is singular, however, that these criticisms have, with a few exceptions, been directed against side issues, and have left untouched the one point at which an educational institution is seriously vulnerable. This question is the question of scholarly productivity. Does the college or university produce scholars and scholarship? Of course, no sane man would question that the American college has done much toward the promotion of scholarship and scholarly interests. The only question that can be entertained is as to whether it has met legitimate expectations in this direction; whether, for example, American scholarship corresponds in volume and thoroness to the enormous financial expenditure which higher education in this country has involved. There are reasons for answering this question in the negative. I wish simply to call attention to this in a general way, and also to suggest some causes for this condition, and some remedies.

It is now nearly three-quarters of a century since Emerson made a notable statement containing both a plaint and a hopeful prophecy concerning American scholarship. "Perhaps the time is already come," said he, "when the sluggard intellect of this continent will look from under its iron lids and fill the postponed expectation of the world with something better than the exertions of mechanical skill. Our day of

dependence, our long apprenticeship to the learning of other lands, draws to a close. The millions that around us are rushing into life can not always be fed on the sere remains of foreign harvests. . . . Who can doubt that poetry will revive and lead in a new age, as the star in the constellation Harp, which now flames in our zenith, astronomers announce, shall one day be the pole star for a thousand years." But if we are to believe the word of at least some competent students of contemporary conditions, the hopeful prophecy of Emerson has not been realized, and the expectation of the world has still not been met with anything much better than the exertions of mechanical skill. Some years ago Edmund Gosse somewhat startled the American literary world by the assertion that America had not produced a single poet who deserved to rank with the unquestioned masters of English poetry. In scientists, historians, philosophers, philologists, and theologians we are, according to a recent assertion from a competent source, equally poor. America possesses only three men of unquestioned preeminence, according to Mr. Owen Wister's remarkable Harvard address two or three years ago, to whom students can repair for academic tuition in their respective lines. However much we may be inclined to doubt anybody's ability to measure scholarship by mathematical methods, the general fact urged by Mr. Wister stands undisputed. We have a network of railways unparalleled in any foreign country; we have captains of industry whose genius is at once the wonder and the despair of the financial world; we have politicians and statesmen of all degrees; but where indeed are our men of unquestionably conspicuous genius in the more purely scientific, literary, and artistic pursuits? Many of our universities are imposing in architecture, and are equipped at an outlay which few European universities can duplicate; but where in the faculties of these universities are the Ramsays, the Dedekinds, the Troeltschs, the Poincarés, the Ostwalds, the Harnacks, the Cairds, and the Wundts? In spite of the frequent reiteration of the truth, we have not yet learned that it is not buildings, primarily, that make a great university, nor laboratories, nor libraries, but men.

Assuming, then, the backward condition of American scholarship as a fact, let us next seek to explain this fact, and to make some suggestions for advance. These explanations are partly general in character, they are partly to be found in our educational institutions themselves. It has been often observed that our nation has been laying the physical and industrial foundations for a great civilization, and that such foundations must be laid before we can do anything else. I can not discuss the last proposition, except to say that great civilizations have been built upon very slender physical and industrial foundations. What I do wish to emphasize, however, is that we can not allow our national growth to be arrested at the point of merely physical or industrial achievement. Physical and industrial achievement can not be that at which we must ultimately aim. That would be a pitiably short-sighted view of life; it would, indeed, be to miss the significance of it altogether. It would be as absurd as it would be for a man to devote his whole energy and attention to the development of his bodily strength and prowess, leaving the spirit in him a weakling and a dwarf. We are indeed almost daily witnesses of this pitiable spectacle. "She has the face of a woman," I have heard one remark, "but the mind of a child." So we have seen college men with the physical strength of giants, and the athletic prowess and skill of professionals, whose spiritual achievements were extremely mean and meager. We must steadily keep in view that the body is but the servant of the soul, and that wealth and material possessions likewise are but means and agents wherewith to compass spiritual ends. We have already made ample provisions and preparations for life; it is now time to attempt life itself. We must as individuals and as a nation devote ourselves at once to more ideal ends, and we must do so at the peril of losing our spiritual strength.

A further condition, closely related, indeed, to the last, of the backward condition of American scholarship is to be found in the persistent tendency to measure the results of education by merely utilitarian tests. The noble saying credited to Novalis that philosophy can indeed bake no bread, but

she can give us God, freedom, and immortality, does not enjoy the popularity with us that it has often enjoyed. Indeed, the view that knowledge and culture must be ultimately measured by practical standards has seldom been applied with more persistence and single-mindedness than now. I take this to be the meaning of the striking statement credited to President Hadley recently which is sound or misleading according to the interpretation given to it. Colleges, said he, do not exist for the progress of scholarship, but for the progress of the people. But what is meant by "the progress of the people"? It will be widely understood to mean material and practical progress. If that is what President Hadley meant he uttered only a half truth, and a half truth which we have learned only too well. If he did not mean that, he uttered a mere tautology; for it is inconceivable how knowledge or anything else, for that matter, can have value apart from the welfare and progress, in some form, of humanity.

This same materialistic tendency shows itself in another form in our current educational literature. Social efficiency, it is now fashionable to say, is the ultimate object of all education. But again, what do the writers who use this term mean by it? They seem often to mean nothing more than productive efficiency, using this term in a merely economic or industrial sense.[1] Much of the current literature on education, both technical and popular, is thoroly vitiated by this inability to strike a higher level than the biological or economic one, to which our national temperament, supported by popular clamor, and aggravated by a too assiduous study of Herbert Spencer and his school, seems hopelessly to have condemned us. The phrases "social efficiency," "civic efficiency," and the like, call attention to another weakness of this view. It seems often to be forgotten that no one can become socially efficient until he has developed his individual powers. As one has well exprest it, a man must first be before he can do. And the maximal development of the individual will likely not

[1] Compare for a shining example of this one of our best books on the theory of education, Bagley's *The educative process*, p. 62 ff. There are many other instances.

be attained by dwelling constantly upon the altruistic feature and motives, tho these will of course be ultimately included. Educational opinion, as might be expected from the present delicate condition of educational science, seems to move just now in a decidedly pendular swing. The overemphasis on the individual, characteristic of the earlier educational writings, is succeeded by an equally one-sided emphasis on the social factor. The essentially organic unity of the individual and the social whole seems still not to be clearly apprehended.

I must content myself, in conclusion, with mentioning very briefly some of the conditions on which the progress of American scholarship will partly depend. (1) We must as a nation accord a more thoro financial and social recognition to the learned classes. I do not advocate here an aristocracy of letters, to use De Quincey's fine phrase, in any snobbish or undemocratic sense of that term. Nevertheless, we must offer more incentive of this kind than we have done heretofore to scholarly achievement. In a country where social position and influence is so exclusively determined by financial standing, it is inconceivable that the best brains should be attracted to the work of education, and to science and letters, so long as the financial remuneration for scholarly services is as meager as it is at present. It should be especially remembered that national scholarship will not likely rise far above the level maintained by the teachers of the young in our educational institutions. (2) We must guard against scholarship becoming a merely feminine pursuit as it at present is threatening to become. The higher training of women is one of the most propitious signs of our time, but it would be nothing less than a national misfortune if the proportion of young men who continue their high school and college education should decrease with the increasing interest of women in this sphere. (3) Something must be done (fortunately the work is already well under way) toward modifying the elective system in the direction of greater restriction and direction of the student's work. It is a pretty theory, one result only of our inflated estimate of individualism, that the student chooses his studies in accordance with his individual tastes and interests, and in

consideration of his future career. But modern investigations have tended to show that an individual of good ability can develop proficiency and interest along any line to which he *applies* himself. So far as choosing studies for the preparation they will give the student for his future vocation is concerned, the student frequently has little or no notion of what his future vocation will be: if he did have, it is questionable whether he has any adequate idea of the relation of any given study, say, Latin or literature, to that vocation, and even if he had, it would be questionable if he should choose studies too closely related to his future work. Perhaps he should do the opposite and seek a well-rounded development before he begins his technical or professional work. Old-fogyism and routine will overtake him soon enough. As a matter of fact, a student's choice of studies, where it is not otherwise regulated, is determined to an alarming extent (1) by exigencies of schedule; (2) by the desire to be in the same class with other students; (3) by the fact that a given course is reputed a "snap" course, and enables him to carry on outside activities, to graduate, or even to make Phi Beta Kappa; (4) by personal liking for the instructor; (5) by a romantic or sentimental interest (which, by the way, is often extremely volatile) in a given study, like, say, classics, sociology, or philosophy; (6) by a desire for change and novelty; and by a number of other considerations which do not stand in the remotest relation to the student's scholarship or future welfare. The student's course is thus frequently a rope of sand, with no relation of any study or stage to any other; and the possibility of finding a way thru the curriculum with a minimum expenditure of energy often affects disastrously the student's habits of study, and often results in the complete arrest of his intellectual development soon after entering college.

In order for scholarship to thrive (4) an atmosphere of scholarship and industry must be cultivated and maintained in the college, and a redistribution of emphasis must occur among the various college interests and activities, with less emphasis on athletic prowess, and more on academic excel-

lence. Athleticism has monopolized too exclusively the attention and interest of the collegian. The development of the physical has its rightful and important place, and we must never again forget that either. But, after all, the main purpose of the college is scholarship, and when athletics or any other subsidiary pursuit usurps the place of scholarship it ought to be firmly resisted.

(5) Reform must begin at home. And before much improvement in our educational ideals can be expected writers of educational literature and those who have to do with the training of teachers in our colleges and normal schools should emphasize more thoroly the personal and ideal aims of education rather than the material and commercial.

(6) The student should be weaned from the idea that his scholarly work is completed with the completion of his college and university career. We do not expect proficiency or success in any other field of serious endeavor by prosecuting the work of that field for four years, or eight, or ten. Why, then, should we in that most exacting of all pursuits, scholarship? It holds an infinite ideal before us, an ideal which we can ever approach, but which, strive as we may, we can never completely attain. It is the work not of a year or of ten: it is the noble achievement of a life.

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VI

SOME ECONOMIC APHORISMS

[Teachers of political economy and of current politics will find it useful to carry their classes thru the train of argument which follows. The article recently appeared in the London *Spectator,* and presents a compact and well-reasoned view of contemporary economic conditions and discussions.]

I. THE NATURE OF WEALTH

Wealth consists of everything which has the quality of exchangeability.

By increasing exchanges we increase wealth.

By diminishing exchanges, thru forbidding or impeding them, we diminish wealth.

Those whose aim it is to increase the nation's wealth will, therefore, never forbid or interfere with exchanges.

But there are things more important than wealth for a nation.

Therefore, it is possible that the demand to interfere with or forbid, and thus diminish, exchanges may be a sound policy even tho it diminishes exchanges and so involves economic waste.

What is certain is that to interfere with or forbid exchanges, not on moral grounds, but on the plea that to do so will increase the wealth of a nation, must *always* be injurious.

Every demand for interference with exchanges must, therefore, be rejected if it is made on the ground that it will increase wealth. Only if the demand is made on moral or social grounds can it be entertained. Then it must be judged on its merits.

II. THE HOME MARKET

The importance of the Home Market must be admitted by all reasonable men.

Exchanges are likely to be more easy and rapid, and therefore more numerous, between a body of persons living in one community, bound by the same laws and bound also by the tie of patriotism.

A statesman's object should therefore be to encourage the Home Market.

But the Home Market can never be encouraged by preventing imports into this country, for all imports are physical orders for goods to be made here in exchange for imports.

Any system under which we sent out goods but did not receive goods back would be a veritable bleeding to death.

We want to see importers bringing their goods into this country, for that is the only way in which we can make sure of foreign orders for the home market, orders which will keep our workmen at work.

This is only another way of saying that protection does not protect. What it does with one hand it undoes with the other.

III. THE FOUNDATIONS OF FREE EXCHANGE

There are only two ways in which a nation can obtain a particular product of human skill and energy:

(1) By making it itself.

(2) By making some other thing to exchange for it.

Which of these two courses the nation will adopt is settled by the line of least economic resistance. If the nation for physical reasons can make the thing cheaper itself, it will acquire it in that way. If for physical reasons it can make an exchangeable object cheaper, it will obtain the desired product in that way.

Practical experiments will prove what is the line of least economic resistance. The notion that the State can determine this by law better than the individual by practise is absurd.

The attempt on the part of the State to dictate whether a nation shall make the desired products for itself or make something to exchange for them is sure to involve economic waste.

Economic waste may be justified on moral grounds, but never on the ground that it is increasing the wealth of the community.

IV. TAXATION

The object of taxation should be the raising of revenue.

We ought, therefore, to tax men because they are rich, not because they own a particular form of property. We must never forget that men, not things, pay taxes.

A material thing, such as a piece of land, a picture, a bottle of medicine, a cigar, a pound of tea, or a motor car, can not pay taxes.

A material thing has no pocket, no banking account, no cheque book which will enable it to pay a tax. It takes a man to pay a tax.

When we say we tax a piece of land, a picture, a bottle of medicine, a cigar, a pound of tea, or a motor car, we merely mean that we choose to make the possession, or the use, or the purchase of these things the measure by which we assess the amount which a man shall contribute to the revenue.

We can—that is, if we like—measure the amount of the taxes a man has to pay by the number of pictures by Turner which he owns, or by his height, or weight, or by whether he wears a hard hat or a soft hat. But, as these are bad or imperfect measures of wealth, they are necessarily bad measures of the amount of taxation which a man ought to pay.

It may be true that most rich men smoke cigars or own pictures or motor-cars, but there are also rich men who do not own these things and poor men who do own them.

Therefore, the assessment by this means can never be sound.

The only sure way of taxing a man effectively and justly is to tax him in proportion to the amount of his wealth.

There are two ways of measuring a man's wealth—either by computing his total capital—*i.e.*, wealth of all kinds—or by computing his total annual income—*i.e.*, the return of his capital.

It is best to measure his power of paying taxes by the amount of his annual income, as it is possible to know exactly that amount.

Income values itself. What a man has received into his pocket or bank in a given year is an ascertainable fact.

In order to estimate a man's total capital—*i.e.*, total possessions, you must guess at the amount, for it is an amount which neither he nor anybody else can estimate exactly.

His stocks and his shares, his land and his pictures, will fetch one sum in one quarter of the year, and a totally different sum in another quarter, according to the variations of the market.

Therefore, while the income a man has received in a given year is ascertainable, the amount of his total capital possessions at a particular time is not ascertainable but only *guessable*. It is better and fairer to tax on a certainty than on a guess.

No doubt by making a man's income, rather than a guess at his total capital, the measure of his riches, and so of his capacity to pay taxes, a few rich men may escape some of their proportionate burden. As a rule, however, a man's income varies directly with his total capital riches, and so with his taxable capacity. Therefore, a higher income-tax is a fairer and better way of reaching the rich man than an income-tax plus a tax on total capital arrived at by a guess or series of guesses.

V. SOCIALISM AND FREE EXCHANGE

The essential difference between those who desire a socialistic basis for society rather than a basis of free exchange is to be found in the question of incentive.

Man will not work without an incentive.

If the State owns the land and all the sources of wealth, and maintains its citizens by a subsistence allowance, the main and rudimentary incentive to work is compulsion by the State.

Under a system of free exchange the main and rudimentary incentive is a man's power to choose how he will lay out the rewards of his labor.

A community which desires to be well fed, well housed, well clothed, and to have general well-being must then decide whether compulsion by the State or free exchange and free choice is more likely to increase the product out of which material well-being is created.

The World's experience of slave labor, forced labor, prison labor, pauper labor, and relief works—all forms of labor in which compulsion is the incentive relied on to make men produce—is that the product goes down to almost nothing. Slave labor and convict labor are notoriously dear and inefficient. The slave only works under the fear of the lash, and it is impossible to keep that fear always before him. Free choice, on the other hand, produces the maximum of product. Therefore, if our object is the production of wealth—*i.e.*, of material things—we must choose free exchange and free choice rather than compulsion as our incentive.

VI. THE WAGES OF CAPITAL

Capital is mobile wealth.

The wages or hire of capital will be greater or less, according to the proportion between the demand made for capital and the supply in the market.

The more capital there is accumulated the cheaper it will be—*i.e.*, the less will be its wages.

On the other hand, as capital grows cheaper the demand for it is sure to grow greater, and thus, as in all other cases of price, a corrective is supplied to a fall in the wages of capital.

Experience shows, however, that under normal conditions capital increases more rapidly than does the demand for it, and that, therefore, the wages of capital—*i.e.*, the interest at which it is lent—tend to decrease, while the wages of labor tend to increase.

As the wages of capital go down the prices of the things produced tend to decrease, and therefore the purchasing power of money tends to increase.

The greater the amount of capital, therefore, the higher *effective* wages.

VII

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[1] Compiled by Edward D. Greenman, of the library of the United States Bureau of Education, to which books and pamphlets should be sent for inclusion in this record.

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VIII

DISCUSSIONS

UNIVERSITY EFFICIENCY

Much has been written in recent months on the subject of Efficiency. Along industrial lines some of this public discussion seems to have borne fruit. The effort to apply efficiency tests to educational systems and institutions would seem to be less successful. A writer in a recent number of *Science* has made a capital reply to those who would subject scientific investigators to such tests as these. He pictured an overseer going into a laboratory where Sir Isaac Newton was at work on the theory of gravitation, and telling that eminent scientist that unless he could produce some results which could be printed in two weeks he would have to hand over the work to some one else. While the analogy between an industrial and an educational enterprise is by no means close, it is nevertheless true that there exists a certain degree of similarity between them. Leaving out of account for the present the sentimental considerations, it may be said that a factory and a university have certain points in common. The board of directors of the factory have functions which are similar to those of the board of trustees of the university. The general superintendent would correspond to the president; the division superintendents, or department superintendents, might be classed with the deans; the heads of departments correspond to professors, and their subordinates would rank with assistant professors, instructors, etc. Taking this analogy for what it is worth, we may apply an efficiency test to a university similar to those which have been commonly applied to industrial enterprises in recent magazines. Those who have had experience in college work, and especially those who have had anything to do with college administration, will

be likely to agree with the writer that there are certain phases which compare most unfavorably with corresponding phases in industrial work when tested for efficiency.

1. In the first place, it may be observed that the present method of organizing and conducting an educational institution lends itself admirably to the cultivation of laziness. This is far different from saying that college professors are lazy. Theoretically our present system is beyond criticism. It is assumed that the professor will devote twelve hours a week to the classroom. If we count Saturdays, this means two hours a day for this work. He would also devote one hour a day in direct preparation and two additional hours in indirect preparation, in which he uses the library and other means at his command to increase his general knowledge of the subject. If another hour daily is devoted to consultations with students and another to work which is supposed to be for the benefit of the whole institution, we have a total of seven hours a day which the college professor is expected to devote to work more or less intellectual in its character. This is doubtless enough, and it is an ideal scheme from a theoretical point of view. The fact, however, that of these seven hours, only two are actually required, lends itself to opportunities for easy living which it might not be too unkind to call laziness. A professor in the department of mathematics, English, modern languages, or classics, might devote no time whatever to his work outside of the classroom, and this might be continued for a long period without discovery by a president or board of trustees. Of course this would be a most unusual case, but its possibility leads one to contrast the system unfavorably with that of an industrial enterprise, where such a state of affairs would be absolutely impossible.

2. The university suffers by comparison with the factory when we consider the business methods employed by each. The superintendent of the factory, or the dry-goods establishment, or the railroad, wishes to have certain specific information, which the heads of the departments are able to give. He calls for this information, and there is never any question in the minds of those concerned but that the request shall

be complied with, within the time specified. Compare this with the procedure of the university. An administrative officer wishes reports from the various departments concerning matters which relate to the welfare of the institution. A small percentage of these reports are ready in the specified time. After waiting patiently for a few weeks, the officer sends out another request and more reports are received. Finally, two or three or four weeks after the required time has elapsed, the reports are all in. This may not be a typical case, but I fear that it is. If this is true, it not only furnishes an illustration of lack of efficiency, but it affords a most pernicious example to the young men who are forming their life habits while passing thru the institution.

3. The business ideals of the university are much lower than those of the factory. I know it may be said that this is not a fair basis of comparison; that students go to college for many other reasons than the obtaining of an education. But if this is granted, it may not be disputed that the establishing of standards and the setting up of life ideals is an important function of educational training, and too often students are not held up in the classroom and laboratory to those standards which they will meet in after life. Sometimes ten per cent. of the total time is allowed the student for absences. If he is tardy, he is easily excused; if his work is incomplete, it is allowed to pass. Too much emphasis is placed upon the statement that a college course is a preparation for life, whereas it should be emphasized that the college course is part of life. The student who leaves college with the notion that to complete ninety per cent. of his work is perfectly satisfactory, and that it is immaterial whether he reports for duty on time or five minutes late, finds himself obliged to readjust his standards, and sometimes this is accompanied by serious disadvantage. Certainly the university can learn much from the factory along the line of business methods and standards.

4. No factory would regard it as a good business proposition to close its doors for a quarter of the time each year. Colleges and universities are coming to realize that it is an

economic waste of time to close their doors during the long summer vacation. The establishing of summer terms in many of our institutions is an evidence that this subject is being given consideration. The summer months are the least expensive months in the year to carry on the work of instruction, and ideal efficiency will not be reached until arrangements are made whereby the opportunities of the classroom shall be offered to students thruout the year. Something may be said here regarding the temptations to waste the property of an educational institution, as compared with similar opportunities in industrial concerns. These are minor matters, and yet any such lack of supervision of property would not be tolerated in business life. I am aware that the whole spirit of an educational institution is very different from that of the factory, with which we have compared it, and that many things may be said in favor of our present methods of university management. It would seem, however, that in the cases mentioned the advantage lies largely on the side of the factory, and there could easily be introduced reforms without fogging the sentimental atmosphere of the university.

THE ATTENDANCE OFFICER AS AN INTERPRETER OF SOCIAL FORCES

In a discussion of a problem as important as that of school attendance no better introduction need be given than is embodied in the words of the United States Commissioner of Education in his report for 1906, when he says that "As a rule the absentee from school is a victim of conditions—hopeless poverty, the ignorance or unnatural greed of parents, the rapacity of employers—over which he has no control. The disclosure of these conditions is the chief public service rendered by compulsory school laws." Nor is it necessary to prove in detail to persons interested in the social uplift the truth of such premises. The experience of each teems with a multiplicity of instances, in each of which the basis of delinquency, it matters not to which group of misdemeanants one wishes to assign them, was either hopeless poverty, the igno-

rance or unnatural greed of parents, or the rapacity of employers, or a combination of these elements.

The attendance problem is closely allied to the problems of the Juvenile Court. Of 101 boys in the special school for truants the year before last, thirty-nine had been in court formally a total of seventy-five times, ranging from one to five times each. Twenty-one had had probation officers and thirteen had been in correctional institutions prior to being transferred to this school by the school authorities. The cases of the court and of the attendance officer are so closely related, so far as the source of trouble is concerned, that only an imaginary line of demarcation exists between them. The school delinquent and the court delinquent are frequently the same person. The boy who is absent from school runs a great risk of being the boy who is charged with some offense, the result of misguided energy. It behooves the attendance officer to deal not only diligently, but also intelligently with his problem. Out of the efficiency or inefficiency of his work may grow a decrease or increase of the grist with which the courts must deal.

Attendance work is not done intelligently unless the officer is a seeker for causes. He must be least of all an embodiment of the idea of the "big stick." It is his privilege to be first a leader of men before he undertakes to drive them. He must have the zeal of the analytical chemist who sees before him a combination of elements heretofore but poorly understood. A work of such magnitude and importance is safe only in the hands of officers trained as social workers. A knowledge of the psychology of the individual and of society is essential. The work of the officer consists least in threatening sentence to reformatories or in preaching the infliction of fines, as necessary as these palliatives may at times become. Proportions are similar everywhere. In Indianapolis only one of each sixty individuals dealt with last year was brought into court. The fifty-nine were dealt with by the truant officer. In each 1,250 persons dealt with, only one paid a fine. In the past seven years only 284 individuals in a total of 29,000 were taken into court. In that length of

time and of that number of individuals only sixteen have paid fines for violation of the attendance law. Personal effort of the officer and the judicious use of truant and special schools are found to be infinitely more efficient than court procedure.

A great many cases of truancy and general delinquency are the result of social anarchy, such as the forcing of mothers to leave their homes to help maintain precarious standards of living by the day's work, the absence of protection and care for the child whose parents are dead, divorced, separated, or one of whom has deserted. The sanction by society of the tenement with its moral dangers, the tolerance of unsanitary environments, breeding debilitated material for future citizenship; the child labor, whether at the loom or on the street as a vendor of papers; the absence in some cases of even a living wage, "the instilling in the subconscious minds of masses of men and women of the eternal dread of an eventual poverty," and the growth of industrial uncertainty are only a few of the causes which singly or in combination must share a part of the responsibility for the situation.

Of the 101 boys in the special school, the mothers of 24 were working, the parents of 15 were divorced, separated, or had deserted, and one or both parents of 30 were dead. Of 680 colored families dealt with in one year, only 205 were supported by the efforts of the fathers alone, while 206 were supported by the mothers alone. In 114 families in one of the white schools, that which gave most trouble, the mothers of 40 worked. Less than one-third of the parents held positions upon which they could depend for steady employment. Such figures could be given indefinitely. These, however, are sufficient to illustrate the point.

Such a situation is desperate, and evolution must work out a plan for dealing with a group of people vastly larger than the proverbial "submerged tenth." Devine truly says that much "misery is economic, the result of maladjustment," and that the term "defective personality is only a halfway explanation which itself results directly from conditions which society may largely control." It is, of course, an easy matter to lead from such conclusions to a variety of remedies, many of

which are half-truths and some of which are phantasies. Practically, however, the school is in a position to do much by combining the idea of the school center and that of the school visitor. The first gives opportunity for a beneficial outpouring of social energy on the part of adult as well as youth, and has the latent possibilities of a real competitor of the gang at the street corner and in the pool-room, as well as the corner saloon and the cheap dance. The school becomes the temple of the people, breathing forth good-fellowship and a moral and physical tone which is the personification of uplift and sturdy citizenship.

The school visitor or the social secretary for the school has possibilities equally promising. The school, especially the city school, has become necessarily a very complex institution. So much so that almost inevitably, and so gradually that it has hardly been perceived, the school has lost the personal touch with the people. This has resulted sometimes in a lack of harmony between the school and the home. Too frequently the only contact between them is that conveyed in a note of criticism. The good things too often go unmentioned. As the nervous tension in the struggle for life increases a closer and more friendly contact is necessary. Misunderstandings may thus be avoided. A return of the leadership of this great institution of a free people will be made possible. The school will become the teacher, indirectly, of all the people. It is at this point that a well-informed and able representative of the educational branch of civic life, one who would convey the good as well as the bad news, would obviously bring the schools, the creation and servant of the people, nearer to them.

A four-month experiment was conducted by the truancy department with one of the schools along this line. The officer visited the school daily and obtained from the registers the names of all of the absentees. All cases of absence were visited, even tho a good excuse, such as sickness, was known to exist. Under such circumstances a word of encouragement was given the mother. The home was made to feel the real interest which the school was taking. Out of such visit-

ing grew a new kind of support between the home and school. Notwithstanding the fact that the medical inspection system was being introduced in the schools at the time, with the result that many children were excluded, the absence for this four-month period was twenty per cent. less than for the corresponding period of the preceding year. Home troubles were confidingly revealed to the officer as never before. Once known, the officer was frequently able by means of advice and personal effort to help adjust difficulties which were producing unhappiness, truancy, and crime. The method had to be discontinued. It imposed too many hardships upon the officer as an addition to an already heavy district. Such an officer could at most do justice to only two schools. The money so expended would, however, bear dividends far beyond those accruing to the more or less haphazard method necessary under present restrictions. The experiment was successful. Delinquency was being throttled at its source. The embryo was far easier to deal with than the finished product and the work infinitely more pleasurable.

Such work requires a high order of officership. It is not to be obtained where appointment is based upon political favoritism. Mere past achievement as soldier or leader of men is not sufficient. Close supervision of work is necessary. Qualifications for appointment should be as high as the dignity of the position will justify. Last year 31 truant officers in Indiana had formerly been farmers, 15 had been barbers or laborers, 9 policemen or constables, 3 reported as being nothing in particular. From the standpoint of education only 5 out of 111 officers were college people. There were 4 who had fourth grade educations. This situation is not local in Indiana. Standards must be made higher everywhere. The work is too important to remain in a rut. Furthermore, salaries must be standardized. Elevate this branch of the work and the work of the court will diminish.

Give us then, as a truant officer, the man or woman who is a student of sociology, of psychology, of pedagogy, of hygiene, and of those factors which lead to a broader knowledge of men. Give us constructive agents. We in Indian-

apolis have fallen far short of our ideal, but we have breathed the fragrance of a better day and shall bend our energies towards the fulfilment of our ambitions to be adjustors for good instead of promoters of fear. To this end we shall not be disheartened nor become petrified, but shall look ever forward. Therein lies fullest opportunity for social achievement and betterment.

James L. Fieser

Director Truancy Department of Public Schools
Indianapolis, Indiana

IX

REVIEWS

Les Universités des États-Unis d'Amérique—Par ALBERT SCHINZ (in *Mercure de France*, October 1, 1911).

It seems to be very difficult to get accurate and well-balanced information regarding the American universities before the intellectual classes of Europe. A recent number of the *International Wochenschrift* contains an address on this subject, delivered before the University of Berlin in July last by Professor William H. Carpenter of Columbia University. It corrected many errors that are commonly accepted in Europe as truth, and made it plain what an American university really is. The present study by Professor Schinz of Bryn Mawr College is attractively written, and contains much that is suggestive. At the same time one can not help being struck by the frequency with which familiar misinformation of an etymological, historical, and educational kind continues to crop out in Professor Schinz's pages. The word "university" has nothing whatever to do with the offering of a complete or universal program of studies (page 453); the history of the foundation of the Leland Stanford Junior University in California is quite different from that indicated with some sarcasm (page 458); the familiar journalistic silliness regarding the office of university president is repeated at some length (pages 459-60). It would be interesting, for example, to know whether in more than one conspicuous place any American university president has been chosen save from among the members of the teaching staff of the institution. It would be interesting to know also which American universities have chosen their presidents "dans les rangs des riches." Professor Schinz has completely mist the facts regarding this office, its history, its functions, and its place in American life.

The average age of college students does not show a tendency to decrease (page 463), but has increased with uniform steadiness for almost thirty years. The word "commencement" has nothing whatever to do with the long holiday (page 467), but is the sole survival of a custom long known to students of university history, which once prevailed at the University of Paris. A very interesting and suggestive essay might be written correcting these and other misapprehensions in Professor Schinz's article.

The Carnegie Foundation for the Advancement of Teaching. Sixth annual report of the President and Treasurer. New York, 1911. P. vi + 145.

The sixth annual report of the president of the Carnegie Foundation, like the others that have preceded it, is a record not only of the activity of the Foundation in the disposition of funds for retiring allowances and pensions to teachers, but is is a document of permanent value to the whole cause of American education for its impartial survey of present conditions along important lines and its suggestions for their future improvement. During the year ending with September 30, 1911, forty-eight allowances were granted, with a total expenditure of $69,910. Allowances now in force are three hundred and seventy, which represent a total grant of $550,525. The total expenditures of the year were $580,-443.21, and the total income $590,566.31. One new institution, the University of Virginia, was added during the year to the accepted list of the Foundation, making the total number at the present time seventy-two. At the annual meeting of the trustees, Principal William Peterson of McGill University was elected president of the board, in place of Provost Harrison of Pennsylvania, resigned. Two important modifications of the rules for granting retiring allowances were made: one extending the grant in special cases "to those whose twenty-five years of service include noteworthy presidential or other administrative work in a college or university"; and the other enabling a college to retire a teacher earlier than the minimum age by continuing to him after he attains

the age of sixty-five years the retiring allowance previously paid to him by his institution after the completion of twenty-five years of service as a professor, or thirty years as professor and instructor. The intention of the first provision, it is stated, is to give to the trustees a certain latitude in dealing with notably meritorious cases of college executives, an authority, however, the report states, of which the executive committee has not yet availed itself. The object of the second rule, adopted at the request of several institutions, is to help a college to carry a temporary pension where it would be impossible for it to undertake the burden of a permanent one.

The report discusses, in this part of it, the moral influence of a pension system, in which the danger is pointed out that by reason of the pensions of the Foundation the colleges may neglect their own duty in taking care of their old teachers, and the question is raised whether college pensions ought not, like others, to carry a contributory feature. "Of all soulless corporations," the report continues, under the succeeding head of the obligations of the colleges in the matter of providing pensions for teachers, "the colleges probably have the smallest compassion so far as the question of dealing with old servants is concerned." The reasons why this is so, the report concludes, does not lie in any extraordinary callousness on the part of college trustees, but it has arisen because any such expenditure is lookt upon as wholly outside the purposes for which the college should spend its money. "The college trustee," it continues, "needs to get a clearer perspective as to his obligations and those of his college."

The second part of the report discusses along broad and enlightened lines educational progress and tendencies from a national point of view. Under "education and nationalism," attention is called to the fact that the government of the United States, like most federal governments, has had no policy with regard to education, and that when one undertakes to study education from a national standpoint, such a study must be taken up with the state systems as units, in all their varying forms, into which largely enter such outside agencies as de-

nominational control and private initiative. Generally stated, the direct state support of higher education in most of the Atlantic states is confined to the general support of schools of technology and to grants to privately endowed academic and technical institutions. Half of the other states have state universities that include technical education. The other half have both state universities and state technical schools. In each state of the Union the control of educational matters is divided, in a greatly varying manner, between the state government and the local authorities, with what the report justly calls a startling variation of efficiency and with greater discrepancies "than ought to be true of a homogeneous and civilized people." The report reviews in detail the progress toward a better adjustment between the college and the secondary school. The accompanying table shows the advance in ten years in college entrance requirements in 172 typical institutions in thirteen states. In 1900, only 24 of these institutions required a four-year high school course for entrance, 121 now do so, and 157 require three and one-half years or more. Ten years ago, five of the thirteen states had no institution that made such a requirement; now at least half of these institutions in every state do so, and in four of these states every institution does so. Such advances in entrance requirements mean improvement, not only in the institutions making these changes, but also, and often much more, in the high schools and academies that have become prepared to meet them. In no part of the United States has progress along these lines been so noteworthy as in the Southern States.

Under separate rubrics is considered the increase in the numbers and in the student attendance of higher institutions during the last decade, and this latter phase of growth as related to educational progress. The Foundation at the present time has a list, still incomplete, of 691 degree-granting institutions in the United States, as compared with 677 on the list of the United States Bureau of Education in 1900. The increase in student attendance is extraordinary and a characteristic sign of the times, not only here but elsewhere, and the United States is sharing in a world-wide movement. In

the 89 tax-supported institutions reporting to the bureau in 1910, there were 33,449, or nearly 98 per cent. more students than there were in the 90 reporting in 1900. In the endowed institutions the 14 states reporting the same number of institutions in 1900 and 1910 showed an increase of 9,704 students, or nearly 36 per cent. The 72 universities, colleges, and technical schools on the accepted list of the Foundation had, in 1900, 55,817 students. In 1910 they had 88,685, an increase of 32,868, or 62 per cent. The large increase during the decade, the report concludes, does not always represent a desirable and healthy progress; but admitting the weakness of the present situation the great growth does, nevertheless, indicate an enormous educational gain.

Progress in professional education thruout the United States during the past decade has been no less significant than the progress toward better relations between the colleges and the secondary schools. The report takes up in this connection medicine, engineering, law, and theology in separate chapters. A chapter is also devoted to progress in religious instruction and the present hospitable attitude of the universities and colleges toward it.

"Perhaps the most striking feature of university growth in the United States in recent years," continues the report, "has been the remarkable rise of the graduate school. In 1909-10 there were 8,776 resident graduate students, as compared with 5,831 in 1899-1900, an increase of 50 per cent. in the decade." The inconsistencies of organization and purpose that have arisen in this sudden growth are pointed out, and it is concluded that the ultimate function of the graduate school in the educational system is still in great measure undetermined. The university itself should decide more definitely than is at present the case what its legitimate function really is, and what sort of men should be admitted to it.

A chapter considers, further, the progress of the state universities toward educational and political freedom, and concludes that on the whole, and in spite of the unfortunate political conditions, both personal and party, that apparently inhere in the administration of institutions of learning con-

trolled and supported by the state, the progress toward independence during the decade has been noteworthy.

The development of an effective board of college government is discust. It is concluded that on the whole it seems wise to leave the educational side of the institution to be managed by the president and the faculty under such conditions as the board of trustees may designate, but to choose as a trustee the educated man of affairs, of sound judgment, who has had a college life, and who is ready to give serious thought to educational matters.

Additional chapters are devoted to a discussion of the growing influence of alumni organizations in American colleges, which it is concluded on the basis of the history of the past few years are capable both of good and of harm; to academic freedom and educational efficiency, in which it is maintained that most college presidents and most college boards err on the side of indulgence, and that for one man unjustly turned out, probably a dozen incompetents are retained; and to a right system of schools for an American commonwealth, which it is asserted shall be one to train the whole population in those fundamentals that make for good citizenship, that shall have, as well, at the right points of articulation, industrial training schools appropriate to the wants of the various communities, and, possibly, a fair number of professional schools for those seeking to enter the professions. The last chapter of the report maintains the thesis that the problem of education is of supreme significance to a modern state. It closes with a sentence that might well be written large, not only in every educational, but in every legislative building in the land: "The question of education, the determination of the right system of schools and of their effective coordination and conduct, is the most important question before each nation, but in no country does this question assume such an importance as in a democracy in which every citizen assumes full political responsibility."

William H. Carpenter

Columbia University

French secondary schools—By FREDERICK E. FARRINGTON. New York: Longmans, Green & Co., 1910. xii+450 p. $2.50.

Dr. Frederick Ernest Farrington, formerly of the University of Texas, now of Columbia University, has rendered a valuable service to the cause of education in the United States by the preparation of a history of the secondary schools of France. Americans for years have given their attention particularly to the educational systems of Germany, and have drawn their educational inspiration chiefly from German sources. Nearly twenty years ago, the writer of this sketch ventured the assertion that the educators of the United States would soon begin to turn their attention to France and England for new educational doctrines and educational ideals. There were then, as now, two reasons for this belief—both racial. The French mind is distinctly the keen, analytic mind of Europe, combined with the very highest type of the artistic and well-balanced judgment accompanying it. Therefore, in devising plans of working to definite ends and in definitely arranging programs in education to be followed, the French are unexcelled. Whenever this nation turns its attention to an educational matter, it is investigated in so thoro and practical a manner and so simplified in expression that any one can understand the explanation. It is never the intention of a Frenchman to leave a sentence or an explanation in obscurity—even in legal matters. On the other hand, the English believe in thoroness and accuracy, and have a decidedly practical cast of mind. They use just enough of philosophy to pull them thru a crisis. They always want plenty of room at the top and bottom of a subject for the mind to work in. With us, much disposed to indulge in the spectacular in education, it is worth a very great deal to have some of the steadying qualities of the English and the analytic and simple artistic qualities of the French.

In the volume before us, the author in four hundred pages has traced the rise and the progress that France has made in education during eleven hundred years, and emphasizes particularly the advancement made in secondary education thruout the republic during the last forty years. Even Dr.

Farrington doubts whether France had anything educational seventy-five years ago that would have paid the trouble of an inquiry. Yet the brilliant names that adorn French history, science, art, literature, government, and administrative ability for a century and a half ought to be enough to dispel any lingering doubts that infest our minds on that score. France has always had great minds under every form of government.

The history of secondary education in France is really the history of the revival of learning in Europe. Each nation there, as did each state in the American union, had to work out its own system of schools. Courses of study had to be made, houses built for dormitories and recitation rooms, teaching staffs provided and pupils instructed. Whether from the theoretical or practical side, the machinery had to be provided and set in motion—all of which is well described by the author in sixteen chapters, covering 378 pages. In tracing the history of education in France for more than eleven hundred years, one is struck by the similarity of the educational movements in each country in Europe, and how nearly all worked along the same or parallel lines. Much light is thrown on the lives, the manners, customs, and thoughts of the people themselves in such an historical panorama. It is difficult enough to teach an inquisitive child, but doubly so to have such an one as Charles Martel, a full-grown man and one of the most powerful monarchs in all Europe, for a pupil. From those little church schools sprang all the larger and greater ones. No wonder that Abélard, who followed the accustomed routine of listening and thinking for eight school years without asking a question, broke with his teacher. From this stolid docility, the time came when the pupil, barely inside the schoolroom door and before he had taken his seat, not only questioned his schoolmaster but judged him. In the United States, the pupil takes his judgments home with him and parades them at the table.

It is always interesting to delve into the history of a people when the vibrations of its brain cells are the most active, and such a time preeminently is that of the French Revolution.

In educational matters, it is astonishing how far many of those men of that period saw, and how they worked blindly, yet instinctively, in the direction of human progress. They were really far in advance of their age. How remarkable that Laplace, speaking for himself and Lagrange, in his opening remarks said, "that they expected to present a general sketch of all the discoveries made in mathematics." In 1802, it was announced that the teacher is more important than the curriculum, a thing that is not fully realized today in this country. A hundred years later they had reached another step—that whenever a pupil left school he ought to carry away with him some certain definite notions. Yet France centralized her school system, while the outward life of the nation goes on as before. In this respect, the English, like the Americans, prefer not too rigid a program.

Education in France has been largely a matter of adjustment. Her statesmen and scholars have seen clearly the difference between classic and scientific schools, and they have provided schools for boys and girls, discerning very clearly the differences and inclinations and aptitudes of the sexes. The legislators of France have endeavored to devise a system of schools adapted to the needs of all the people of France. With infinite patience they begin the education of the little child, and they follow him thru his entire course till he comes out an artisan, or a scholar, owing to what he will follow in life. Men and women first is their motto.

For American students of education, I do not know of a book accessible to the critical reader of contemporaneous education that throws so much light on education in France as this one. Longmans, Green and Company have printed it in clear, bold, and distinct type, and the author has been careful and painstaking in his presentation and discussion of all topics, tho not tediously so. It is a well-balanced work, and is discriminatingly written.

It is such a book as every student of education ought to have in his private library on account of its intrinsic value. I wish the author would next take up the primary and ele-

mentary schools of France, and treat them in the same masterly way that he has the secondary schools.

JAMES M. GREENWOOD

SUPERINTENDENT OF SCHOOLS
KANSAS CITY, MISSOURI

The study of history in secondary schools, report to the American Historical Association—By a Committee of Five (Andrew C. McLaughlin, Charles H. Haskins, James H. Robinson, Charles W. Mann, James Sullivan). New York: The Macmillan Company, 1911. 72 p. 25 cents.

This revision of the report of the previous Committee of Seven is essentially a witness to the increasing attention devoted to historical instruction in the secondary schools of the country. Like the earlier report, it recommends blocks of study extending over full four years of the high school course, but it goes much further in its emphasis upon the importance of history, especially for those who do not go to college, and urges strongly that at least three years' work in the subject should be *required* in the high schools. And there are noteworthy innovations in the content of the four "blocks": English history is transferred from the third year to the second; Medieval history is to be judiciously expurgated and treated in connection with English history; a survey of Modern European history is to cover the third year; and American history and government are to be dealt with in the fourth year separately. The revised program is thus outlined (p. 64):

"A. Ancient history to 800 A.D. or thereabouts, the events of the last five hundred years to be past over rapidly. . .

"B. English history, beginning with a brief statement of England's connection with the ancient world. The work should trace the main line of English development to about 1760, include as far as is possible or convenient the chief facts of general European history, especially before the seventeenth century, and give something of the colonial history of America.

"C. Modern European history, including such introductory matter concerning later medieval institutions and the begin-

nings of the modern age as seems wise or desirable, and giving a suitable treatment of English history since 1760.

"D. American history and government, arranged on such a basis that some time may be secured for the separate study of government. We propose . . . a possible division of the year which would allow two-fifths of the time for such separate and distinct treatment."

To the objections repeatedly raised against the extent of the Ancient history block, the Committee replies at some length and convincingly. Rational omission is to be remorselessly practised. "More attention must be paid to the great men, less to the history of institutions" (p. 36); and high school students need not know "technical constitutional organization and the meaningless detail of war" (p. 38).

With the incisive recommendations concerning the teaching of modern European history, every one must agree who appreciates the importance of giving our future American citizens some practical knowledge of contemporary social and political conditions among kindred peoples, and who realizes that at present the average reader's "dark age" in history is too often the vital period since 1871, or even since 1815. If citizenship of the broadest and highest type is to be inculcated in this country, it will be due in no slight degree to increasing familiarity with the development of modern Europe.

There will be greater opposition to the Committee's proposed tentative solution of the vexed problem of the relation between American history and government. Politics is only a part of history, albeit an important part, particularly for the young student, and any arbitrary separation is bound to create false ideas about the dynamic character of our political institutions. It is to be ardently hoped that most high schools will find their way clear to act upon the sound logic of the report in upholding the recommendation of the Committee of Seven to *combine* the subjects, rather than adopt its illogical conclusion in favor of the separate treatment. The Committee of Five explain that in this they are confronted by a condition and not a theory—they are proposing palliatives

for present injurious habits of teaching American history and are soothing school administrators. But it is the only note of conscious compromise the reviewer detects in the whole report.

In fact, more important than the revision of the study "blocks" is the Committee's effort to raise the ideal of historical teaching and to emphasize the need of carefully trained instructors and appropriate equipment. "The most important factor in the schoolroom is not the curriculum, the text, or even the method, but the teacher" (p. 13). Again: "In most schools the provision for sound and substantial work in history is quite inadequate. . . The history teacher is as much entitled to helpful apparatus as the science teacher is to the expensive appliances of his laboratory. . . A room devoted to history, a room well stocked with such materials as pupils can use and enjoy, will some day, and we hope soon, be considered as indispensable as the laboratory in the well-equipped school" (p. 16).

These last quotations should constitute the first clauses of the history teachers' creed and should be implicitly believed and recited on all occasions. It is idle to lay the blame for poor teachers and worse equipment upon administrators. The latter will do little about these things until the history teachers really want something done, and tell their wants; at that happy time, the administrators will do a good deal.

Carlton H. Hayes

Columbia University

In *The psychology of conduct,* Professor H. H. Schroeder of the State Normal School at Whitewater, Wis., has brought together an interesting collection of material for practical use in the classroom in the discussion and elucidation of practical ethical problems. In the hands of a thoughtful and competent teacher this book is capable of being used to very great advantage. (Chicago: Row, Peterson & Co., 1911. 287 p.)

Professor James W. Garner of the University of Illinois has a well-established reputation as a student of government and governmental methods. He has made a useful little textbook for use in secondary schools particularly, under the title

of *Government in the United States.* The information given is well classified and very comprehensive. (New York: The American Book Company, 1911. 415 p. $1.00.)

Introduction to the English classics, by Professors Trent and Brewster of Columbia University and Mr. Hanson of the Mechanical Arts High School in Boston, is a book of a somewhat new type. It is intended to put the reading and study of English classics upon a proper plane and to help the young student to approach them from the point of view of appreciation rather than that of merely textual and historical study. The authors have been very successful in their treatment of the various books that are now much read in secondary schools and colleges as part of the prescribed work in English. We wish that the introductory chapter, entitled Approaching the Classics, might be reprinted as a tract and circulated by the million. (Boston: Ginn & Company, 1911. 297 p. $1.25.)

Another interesting book of a new type is *Modern science reader,* by Professor Bird of the University of Virginia. The author has collected very interesting and simply written articles, which illustrate many of the fundamental facts of modern scientific knowledge, especially in the field of chemistry. The book will be found very useful by those teachers and students who are not working in the experimental sciences, as well as by those who are. (New York: The Macmillan Company, 1911. 323 p. $1.25.)

Professor Gummere of Haverford College has made a truly delightful book in his *Democracy and poetry.* Naturally, his treatment of scientific themes is related to his well-known and fundamental theory as to the communal origin of all poetry. The studies of Whitman and Taine are particularly noteworthy. No careful student of contemporary criticism will overlook this book. (Boston: Houghton Mifflin Company, 1911. 328 p. $1.50.)

Mr. Mierow of Princeton offers a carefully made textbook for elementary students of Greek in *Essentials of Greek syntax.* The exercises are to accompany the reading of Xenophon, Lysias, and Plato's *Apology.* (Boston: Ginn & Company, 1911. 165 p. $1.25.)

Two new additions to Bell's Simplified Latin Classics, which are the best of their kind, are *Cicero's letters* and *Cæsar's fifth campaign,* both edited by S. E. Winboldt. (London: George Bell & Son, 1911. 82 and 89 p. 1s. 6d. each.)

The Seventh Annual Report of the Education Department of the State of New York is a stout document and a valuable one. Under its present administration, the Education Department of New York State is the most carefully and systematically administered of all state departments of education. The several assistant commissioners, as well as the commissioner himself, deal in their thinking and in their administrative action with large problems, and they deal with them in a practical and statesmanlike spirit. The student of education who wishes to know what is really going on as distinguished from what is merely being talked about, ought to familiarize himself with this volume. The judicial decisions of the Commissioner of Education, as here reported, are models of their kind. (Albany: New York State Education Department, 1911. 936 p.)

Two attractive little volumes have been added recently to the Riverside Educational Monographs edited by Professor Suzzallo. In his essay on *Individuality,* Professor Thorndike has produced a thought-provoking little book, and in his *Vocational guidance of youth,* Mr. Meyer Bloomfield has made a genuine contribution to the literature of vocational training by reason of the new material that he has brought together. (Boston: Houghton Mifflin Company, 1911. 56 and 124 p. 35c. and 60c.)

In the stout volume entitled *Myths and legends of the Celtic race,* Mr. T. W. Rolleston has brought together an amazing amount of very interesting material on a little known subject. The early Celtic history and Celtic folk-lore are an essential part of our inheritance of civilization. The teacher, as well as the general reader, may well have resort to this book for information and inspiration. (New York: Thomas Y. Crowell & Company, 1911. 450 p. $2.50.)

Handbook of nature study, by Anna Botsford Comstock is a book of most imposing size and weight. It contains a

large amount of material for teachers and parents, well illustrated and covering a wide field of elementary instruction. (Ithaca, N. Y.: Comstock Publishing Company, 1911. 950 p. $3.25.)

Messrs. Henry S. Pancoast and John D. Speth have edited and annotated, with scholarly skill, a collection of English verse before Spenser in their *Early English poems.* (New York: Henry Holt & Co., 1911. 547 p. $1.50.)

A book which is rather artificial and which we are bound to say is not very satisfying, but which illustrates the rather superficial habit of reading now so common, is *Readings in English prose in the eighteenth century,* by Professor Raymond N. Alden of the University of Illinois. The trouble with a book of this kind is that students read these *disjecta membra* and are prone to feel that they have really accomplished something. (Boston: Houghton Mifflin Company, 1911. 724 p. $2.25.)

An elaborate and compendious survey of the literature of heredity is given by Professor Rignano of Milan in his volume entitled *Inheritance of acquired characters.* (Chicago: Open Court Publishing Company, 1911. 413 p. $2.00.)

We welcome the *Poems of Chaucer,* being a selection edited, with introduction and notes, by Professor Oliver F. Emerson of the Western Reserve University. (New York: The Macmillan Company, 1911. 257 p. 80c.)

Plane and solid geometry, by Wentworth-Smith, is a new edition of a textbook long well known and treated as a standard. (Boston: Ginn & Co., 1911. 470 p. $1.30.)

A genuine service has been done by Messrs. H. W. and F. G. Fowler in editing the concise *Oxford dictionary of current English.* We have here in one volume of convenient size, excellently printed, much of the material which makes the great *Oxford English dictionary* unique. The book can not be too highly commended to teachers and students. (Oxford: At the Clarendon Press, 1911. 1041 p.)

Students will find much to help them in Gilbert O. Ward's *Practical use of books and libraries.* It is full of helpful information for school and college students. (Boston: The Boston Book Company, 1911. 100 p. $1.00.)

X

NOTES AND NEWS

Association of American Universities

The thirteenth annual conference of the Association of American Universities was held with the University of Chicago on October 26 and 27. The meeting was largely attended. All but two of the institutions included in the membership were represented, the University of California, Chicago, Harvard, Illinois, Kansas, Minnesota, Missouri, and Virginia by their presidents and the others largely by administrative officers. At the three sessions of the conference papers were presented by Dean Evarts B. Greene of the University of Illinois, President Judson of Chicago, and President Lowell of Harvard.

Dean Greene's paper considered the matter of departmental organization and administration in American universities, particularly with regard to the system of a single head and the system of a departmental committee under a chairman. Both of these systems, consistently carried out or in variously modified forms, are in use in the universities of the country, and in a few instances both are found side by side in the same institution. The policy of a single head, according to the paper, has the marked advantage of definitely fixing responsibility and of expediting the business of the departments. Its disadvantages are the danger of autocratic procedure and the tendency to dwarf and subordinate junior colleagues. The advantages of the committee system are that the considerable burden of administrative work is not all put on one man, and that the system of rotation, which should be a necessary part of it, facilitates the substitution of a competent for a possibly incompetent administrative head, who under the other system might be permanent. The conclusions arrived at were that any scheme of departmental organization should provide an officer, to be designated as "chairman" rather than as

"head," preferably of full professorial rank, who should be assigned by the president, after conference with the members of the department, for a limited term of service only.

President Judson discust in his paper the important and difficult question of the advantageous distribution of the teaching time of professors between instruction and research. The distribution of time must in part depend upon the nature and extent of the research carried on in a given institution as compared with the instructional work of the institution. If the primary duty of the institution is toward instruction, then this duty must be fulfilled before research can be undertaken at all. The distribution of a professor's time can hardly be determined by any general rules, but must be settled, at least primarily, on the basis of considerations of personality. The aptitude of men must be tested and followed. Some men are excellent teachers and of no great value as investigators; and others may be valuable investigators and not very useful as teachers. Others may be useful in both lines. Some research work is no doubt advisable for nearly all members of a faculty, for their own inspiration and for broadening their outlook on the subject-matter of their specialty. It is the duty of an institution, however, in carrying out its educational purposes, to test the fitness of its staff, and to use its members along these particular lines. If a given individual has an aptitude for investigation, the only principle that can be followed in his case is that he should devote part of his time both to investigation and to teaching, and that his teaching should not be so much as practically to exhaust his entire strength. The application of this principle will naturally depend upon the nature of the subject to be taught, upon the size of classes, and upon the methods of instruction. The distribution of time can seldom be uniform and continuous. As a rule, it must depend on the problem in hand. In a given case it may even be advisable to relieve a person for an interval from a large amount of teaching until a given problem is completed. These considerations, however general and vague they may be, are the only ones that can safely be followed. Fundamentally, they are based upon the idea of

the primary duty of the university, in securing efficiency of work, to ascertain the special aptitudes of members of its staff and to use them along the lines of these aptitudes. The probable worth of a specific investigation, which must be determined in terms of equipment and of men, must also be taken into account. The distribution of time under all conditions must inevitably be a matter of judgment, varying from time to time with the different persons involved and with the different subject-matter under consideration.

President Lowell's paper was a brief for examination on subjects instead of on courses of instruction. The current American practise of conferring degrees, with the single exception of the degree of doctor of philosophy, is based upon the accumulation of credits in individual courses, rather than as the result of comprehensive examinations upon broad subjects. The system of making the single course the unit for purposes of examination and of counting towards the degree, which is conferred after scoring a fixt number of courses or of semester hours made up of courses, is entirely different from the European system of a general examination, written or oral, on the whole field of study, held at the time the candidate comes up for his degree. The American method is an attempt by the instructor of a single course to ascertain how much the student has derived from that particular course at the moment when it comes to an end; the European, an attempt to measure the student's knowledge and grasp of a whole subject at the close of several years of study. The doctorate of philosophy, taken bodily over from Germany, alone among university degrees is bestowed upon a final examination on subjects. Each of the two years, in the judgment of the author of the paper, has its merits and defects. Defects of the European system are the danger that a general examination upon a subject will be so confined to the commonly recognized body of knowledge upon that subject as not to encourage advanced and specialized work; and the concomitant possible preparation on the part of both instructor and student for a general examination on the conventional knowledge of a subject, instead of a real knowledge of it.

Defects of the American system are that the student is not obliged to retain what he learns for more than a very short time. As soon as he has past the final examination in a course he may, and frequently does, forget the substance of it, whereas if a general examination is to come before he can attain his degree, what he has once learned must be remembered long enough to produce a much deeper impression on his mind. Another defect is the comparatively small inducement to coordinate and combine the knowledge acquired in different courses; the student, in point of fact, is pursuing a number of short courses instead of studying a subject. The most serious defect of all is the effect of the American system upon the respect felt by the student body, and particularly of the undergraduate body, for excellence in scholarship. Few students have coordinated courses so nearly identical as to make competition effective, and there is the almost inevitable tendency to enhance the value of plodding diligence instead of the combination of hard work with marked ability necessary to pass a general examination. General examinations would be a benefit, also, to our professional schools, altho these are, as a rule, much more efficient than our colleges. A general final examination in the college would need to be adapted to the particular state of the American institution. Examinations at the end of courses can not be wholly abandoned; they might, however, be limited to enforcing regularity of work, and the degree and rank at graduation might well depend mainly upon the final examination. Owing to the less rigorous training in our secondary schools we should also be unable to follow the English and German system of demanding of our undergraduates almost exclusively work in a single subject. We can not give up our requirements that a student must to some extent distribute his courses widely, as well as concentrate a number of them in one field, and hence the final general examination would be necessarily confined to the subject in which he has done the greater part of his work. But these limitations are not inconsistent with the main principle of a general final examination upon a subject, and will not destroy its undoubted advantages.

The conference of deans, held after the regular sessions of the meeting, continued the discussion of last year on the admission of the graduates of the minor colleges and normal schools to candidacy for university degrees. A resolution conveying the thanks of the conference to Dr. Kendrick C. Babcock of the United States Bureau of Education for his work begun in the classification of universities and colleges with reference to their bachelor's degrees was unanimously adopted.

Leland Stanford University was elected president of the association for the ensuing year, and Clark University vice-president. Harvard was continued in the secretaryship. Columbia and Indiana were made the additional members of the executive committee. It was decided to hold the next annual conference with the University of Pennsylvania, at a date to be determined.

The National Education Association

A large number of men and women who have long taken an active interest in the affairs of the National Education Association, and who have been chiefly responsible for its upbuilding and its usefulness, are much concerned about its present condition and about its future. They deplore the spirit of faction and of sex exaltation that has entered into the Association, and they note with sorrow the recent decline in its prestige and in the quality of its membership. The EDUCATIONAL REVIEW has received many inquiries as to what steps might possibly be taken to restore the Association to its old position, and to rescue it from those who have no purpose but to exploit themselves thru it for personal advantage and local glory.

By way of reply to these inquiries which have come from all parts of the United States and from teachers of every sort and kind, the EDUCATIONAL REVIEW would say that two things seem to be necessary if the National Education Association is ever to resume the high place which it once held.

In the first place, those men and women whose interest is in education, and not in politics and in personal advertising, must bestir themselves and spread abroad such a spirit of

high-mindedness and unselfishness in the Association that its membership will drive from their ranks with scorn those who have used the Association so shamefully and so ill.

In the second place, there is need for a short but vitally important amendment to the provision of the present by-laws which defines the privileges of active members. Section 3, Article I of the present by-laws reads: "Active members only shall have the right to vote and to hold office in the Association, in the National Council of Education, or in the several departments." This provision should be amended without delay by the addition of the following words: "provided that no active member who was not regularly enrolled as such on or before December 31 of the calendar year preceding that in which any given meeting of the Association, of the National Council, or of any department is held, shall be entitled to vote or to hold office."

The adoption of a proviso such as this would confine the privilege of voting and of holding office to such persons as might care enough for the Association's welfare to join it without regard to their attendance upon any particular meeting. Such a proviso would make it possible for the Secretary, at the time of the meeting of the Department of Superintendence and when the meetings of the active members from each state and territory and the meetings of the active members as a whole are held in July, to place in the hands of the proper officers a printed alphabetical list of every person entitled to vote and to hold office. Such a proviso would exclude what may be called the floating vote, including all those persons who come to a single meeting and who never appear again. Such a proviso would make impossible the buying of memberships merely for voting purposes, which disgraced the Boston meeting of 1910, and also the canvassing, wirepulling, and caucusing which were such a stench in the nostrils of the older members who attended the meeting in San Francisco in 1911. Such a proviso alone would, of course, not exclude partizan or sex politics from the Association, but it would at least require the elections and matters of policy to be settled by teachers who care enough about the Association to join it in

advance of any given meeting, and not solely for the purpose of voting at such a meeting for or against some person or proposal. The sooner this amendment is adopted, the sooner will the Association turn its face toward the day of better things.

Where are the acts?

Mr. John Jay Chapman is a person of agile mind and intrepid pen. Twenty years or more ago his literary incursions into politics and his political incursions into literature amused a good many New Yorkers who were endowed with a sense of humor. In the interval, Mr. Chapman has tried loftier flights. In the judgment of at least one appreciative critic, he is held to be comparable to Emerson; surely a degree of embarrassment that was not necessary. In a recent book entitled *Learning and other essays,* Mr. Chapman has busied himself with the college professor and particularly with what he calls "professorial ethics." In common with other writers as irresponsible as himself, Mr. Chapman attacks college professors because they sit by with folded hands while college presidents and college trustees do evil deeds to their colleagues. We come upon this sprightly passage, in particular:

> "It is the public that protects the professor in Europe. The public alone can protect the professor in America. The proof of this is that any individual learned man in America who becomes known to the public thru his books or his discoveries, or his activity in any field of learning or research, is comparatively safe from the guillotine. . . . I have often wondered, when listening to the sickening tale of some brutality done by a practical college president to a young instructor, how it had been possible for the eminent men upon the faculty to sit thru the operation without a protest. A word from any one of them would have stopt the sacrifice, and protected learning from the oppressor. But no, these eminent men harbored ethical conceptions which kept them from interfering with the practical running of the college. Merciful heavens! who is to run a college if not learned men? Our colleges have been handled by men whose ideals are as remote from scholarship as the ideals of the New York theatrical managers are remote from poetry. In the meanwhile, the scholars have been dumb and reticent."

The first comment which occurs to us is, Important, if true! So much has been said and written within the last few years

about the sort of thing of which Mr. Chapman complains that it ought to be possible for some one to indicate the specific fact or facts upon which rest such generalizations as Mr. Chapman takes evident pleasure in making. The pages of the EDUCATIONAL REVIEW are at the service of any one who will, over his own name and in language that is neither libelous nor slanderous, set out specific facts as to any single case of "some brutality done by a practical college president to a young instructor" that has occurred in any reputable American institution of higher learning within the past twenty-five years. The EDUCATIONAL REVIEW is not concerned with mere rumor or with gossip or with unfounded assertions. It will provide space, however, for names, dates, facts, and circumstances, if there are any which can be adduced by a responsible writer who is ready to sign his name.

A cable dispatch from Paris, to the New York *Sun*, announces that Professor Bergson has been designated as visiting French professor to Columbia University for the year 1912-13. This means that Professor Bergson will be in residence at Columbia University during a portion of the next academic year, in accordance with formal arrangements entered into some time since between the authorities of the University of Paris and those of Columbia University. Professor Bergson easily dominates the intellectual world of today. His personality, his teachings, and his views of life are subjects of animated discussion wherever scholars and students of philosophy gather in any part of the world. His presence in the United States, even for a short time, ought to give a great impulse to the serious study of philosophy here, and ought to help to redeem it, in some measure at least, from the tendencies which have recently been most conspicuously in evidence.

EDUCATIONAL REVIEW

FEBRUARY, 1912

I

THE SCHOOLMAN'S MONDAY MORNING[1]

My youngsters sing a foolish song around the house: "I hate to work on Monday." It is a cheap, slangy thing they have picked up. It has a jingly tune that provokes you by ringing in your head when you are not thinking:

> "I hate to work on Monday
> And when Tuesday comes I hate it even more."

This is all I can remember of it. It is enough.

Perhaps the feeling exprest in this refrain has a good deal to do with "retardation," this year's fashionable complaint. You would not know the extent of teachers' distaste for Monday because you are not a first-class hater of school work. The thoro detester never reads a school publication. Carolyn Shipman, who has studied teachers, tells us in the EDUCATIONAL REVIEW that more than half of those employed say they do not like the work and that many say they loathe it. An *Atlantic monthly* editorial says we school folk "find little joy in our business." An anonymous writer of a widely read article in the *World's work* affirms that "practically all of us are disgusted with our pursuit." A friend of mine reads an educational periodical in the subway but carefully conceals the cover which proclaims what the paper is. I doubt whether the *En-*

[1] Other articles in this series are: When the schoolman fails, EDUCATIONAL REVIEW, March, 1909; The schoolman's dismissal, June, 1909.

gineering journal is so disguised. I know teachers who, when out of town, sedulously hide their regular employment. Miss Beardsley finishes the first day of school by remarking, "Only a hundred and ninety-two days more this term!" Even in the most brilliant of felicitous Grant Showerman's lyrics in this magazine you catch the plaintive note of a quaint but undisguisable discontent. How is it with you?

Do you remember the ecstasy of Friday afternoons back in 1875? The happy anticipation of release? There were flashes of it thru the noon hour. The session from one to four was mellowed by it. Thru the open school windows used to come whiffs of syringa and honeysuckle smell. It sweetened your blood. Teacher was tolerant. No one was kept in on Friday. As the door at last burst open outwards like the flange of a ripe milkweed pod, boydom burst out with a yell, a wild, Cossack horde, conscious of a wealth of sixty-five golden hours for revel, hilarity, liberty, and joy. Are you able on contemplating a return to your desk on Monday morning to find yourself in a state similar to the old transport of the Friday four o'clock?

There must be some reason for the repeated statement that the teachers dislike their place. Thomas Hunter wrote an essay on it. He evolved the degradation of the teacher from the origin of our position. "The American public school," he said, "is a growth from eleemosynary institutions: schools for the poor, schools that were charities for the lower classes who were not able to hire their private tutors like gentlemen, so there came the name, common schools, a term of reproach."

We can reason ourselves away from this conclusion. The best of our families now patronize the public schools. There are no better brains, brighter hopes, or sweeter dispositions in pupils of private tutors than the agreeable qualities brought by our children to us. No governesses excel in respect an equal number of public servants whom you could name.

Much has been written to show that poor pay is responsible for contempt of teaching. America, more than any other civilized country, gages respect by the dollar mark; but you knew this when you went into this service. You, with your

eyes open, turned your back on the chances of wealth. You have no disappointment, then. You will not suffer cold and hunger; all your other pain from lack of great money will be due to your own point of view. Take the right one. Stand with the boys that want little: Diogenes, Socrates, the big ones.

More serious is the contempt for puttering. I meet among hard-headed citizens a not unusual impression that we are fuddlers, that we have no conception of the marketable value of time. William Felter has an essay on "Educational Waste," showing how we could do twice as much and do it better if we were held to the same kind of account as other paid employees are. He says the ordinary school spendthrifts enough energy to run another of equal size. Recently a number of my friends formed a committee to manage a college alumni banquet. There were a corporation lawyer, an architect, and a builder; the rest of us, four or five, were teachers. But we pedagogs put together didn't seem able to turn out as much work as any one of our old classmates who had outgrown his academic training. Those other chaps seemed to grasp what was to be done and to set about it and to do it properly the first time, but our group were lacking in just ordinary American hustle. I see this difficulty in every school I know. The dawdle-pace is everywhere. Charles Richards, now in Cooper Union, was once a trustee of a school I was working for. He asked us how many lessons of how many minutes we devoted to this subject or that and wisht to see our outlines showing the disposition of our time. Not one of us had ever realized that a year of our class work in English was less than fifteen of an ordinary paid worker's days and that it was essential to make every minute count if we were to perform adequate service. We refuse to be gaged by efficiency standards of other time-work. We compare ourselves only with other schoolmen, so that we perpetuate a low-geared motion that competitive concerns despise. Our critics have suggested that the small amount of fixed service demanded of us is on its face absurd. I must be at my post a hundred and ninety-three days from twenty minutes to nine

to half-past two. I have thirty minutes for luncheon. This amounts to about one hundred and twenty eight-hour days out of the three hundred and sixty-five. Ninety-nine out of a hundred citizens believe that we have what they call a "snap." There is no use of our saying that we have a great deal of outside study to do, correcting papers and all that. The fact that we are not required to do this work on the ground and under supervision takes away our opportunity to submit it in evidence of our contention that we have a hard position. Our Saturdays and our vacations loom huge in the eyes of the world. Our names crowding the passenger lists of the summer steamers weaken our arguments for higher pay. In spite of this we can prepare reports to show that we are on the edge of nervous prostration, suffering with heart disease, digestive trouble, and kidney complaint. The unsympathetic critic declares that this is only another evidence of our incompetency; we do less work than any one else and break down to boot. He believes that real work and more of it would give us less opportunity to agitate ourselves into disease. Our public campaigns for more money without any prominent promise for better service tend to make those who must be in their places longer hours with shorter vacations sneer at us as incompetents. And so as if we had an aristocrat's leisure without his birth or income we are disliked by the workaday world too much. We absorb some of its contempt for our service and believe that we hate our jobs.

HOW MUCH SALT ARE WE WORTH?

We suffer, too, in comparison with business men from the difficulty of proving our value. Ziegler, baking-powder salesman, could stand up and talk straight to the head of the firm because it was recognized that Ziegler could turn fifty thousand dollars a year from his sales into any concern; but if an aggressive member of the Board of Education gets you out of your eleven-hundred-dollar position, you have no market value. None of the hiring parties know how to judge whether a teacher is worth his salary or not. The most valuable

service you may have done may have been the cause of your removal, as witness the former superintendents of dozens of our cities.

When a new superintendent undertakes to gear up a system and eliminate the waste time and effort of it, the protest of the lazy and seditious frightens the school trustees so that every one knows that a board of education prefers peace to progress. No able superintendent can come as near his conception of efficient schools as other managers can approach their proposals. The people howl for good schools and expel their best superintendents. A steel mill manager can be rated by the monthly increase of dollar profits. They overbalance any outrage on the moral sense of the community he may commit, but no schoolman can make himself indispensable. The reason is those who pay him do not know what indispensable educational service is. When I work for myself I have no uncertainty as to how much or how little I ought to do; when I worked for a railroad company I had no doubts as to what was a day's work; but working in a school system I never know whether a day's work is satisfactory or not. The things that are commonly regarded as essentials are so often mere forms that I despise them, while the really fine things are not in the by-laws nor courses of study. And so, because success is conventionally so uncertain the schoolman finds it hard to love his job. This can be cured. We need not protest so much against those who are trying to apply the efficiency tests of business to what we do. The louder we cry "You can not rate us in terms of dollars," the harder we make it for any teacher to earn more dollars. There are many of us who would be glad to work more hours more days if thereby we could justify a man's pay by a man's day.

Another thing that contributes to the dislike of our position is its lack of responsibility. The system, devised on the plan of an army, has made it impossible to reward the able and to punish the lazy. We are not like lawyers and physicians; we are more like factory hands run on schedules but with no definite piecework to show whether well done or botched. We need these Binets and Thorndikes to bring us some meters

whereby we may say, "There's a masterpiece. I did it." The British schoolmen bungled their "payment by results." It narrowed methods to a single skeleton. But results are still the main thing and always will be. Give us more skilful testing and immediately come freedom in method, invention, and ability.

It is not only suppression of personality in teaching that has disgusted us. Meddling with our other selves by this and that person is especially irksome to men and to women of independent spirit. We're everybody's business and everything about us is especially the business of those officers who have power over us and enjoy using it. Superintendent Burroughs suggested to me in Hyde Park that I ought not to ride a bicycle or eat with the children. Trustee Smith in St. Clair corrected me for taking part in a play given by the Chautauqua Circle. When I was a young man with fewer faults than I have now the demand that I be a living examplar for youth in everything was the most unhappy obligation that I had. I find that the reasons why most of my classmates gave up teaching were largely weighted with distaste of this expectation. It was not because we were unwilling to do all we could to get our boys and girls to grow up clean and admirable, but it was because of our instinctive contempt for the type of goodness the convention and tradition that are incarnate in school boards and superintendents proposed for us. The noticeable correctness of speech, the painful dignity of manner, the abstention from politics, and the puritanical avoidance of all sorts of amusements—this, with all the other sapless traits that made the typical teacher, was what was expected of us. This demand set no pattern for the young which spirited youth would admire. It drove out of teaching, as soon as they could afford to leave, the livest, merriest, most virile men and the brightest women. It left the uninteresting person of the sort that was so typically pedagogic that Emerson remarked, "The schoolboy says, 'I do not want to be like my teacher.'" This narrowing criticism of the teacher is still in vogue in thousands of localities. Superintendents decry against teachers going to dances or to the theater. Even in

our big cosmopolitan town one school board member, out on the river one Sunday in a launch, remarked the impropriety of my being seen in my canoe. As we grow older we do not dislike the duty of serving as an example, provided it is of the kind of man we should like ourselves and our boys to be; but the obligation of being a type different from that which a decent member of the board of education sets for himself is hateful. Interference in petty things makes more teachers dislike their office than any other cause I know. How anything short of legal protection in tenure of position can remove this belittling surveillance of a schoolman's uprising and down-sitting I can not see. Scoundrel teachers do get in who outrage the decency of the town's social conscience, but their number is not decreased by paternal restrictions of outward forms. Is it?

The schoolman who hates his job, hates it because it is little and because it is so ordered as to make him little, too. You need an administrator like Henry Van Dyke, who will say to his men: "Let us have teachers who will go out into the world and touch life on different sides and take part in various labors and learn how other men live and what they need, men who have been buffeted, who know many things, who are broadened by experience, who have gained the power of vital inspiration, who can start their children onward and upward thru the struggles and triumphs of a life-long education."

Well, we have no general opinion that the typical schoolman is that sort of a person. On the contrary, when Henry Johnson of the Boys' High School in Brooklyn went to regain his health on an Arizona ranch and let it leak out in conversation what his business was, the ranchman exclaimed: "My God, what a lady-job for a man!"

So, because our origin is low and our pay small; our work inexpert and our hours too short, our value not demonstrable and our independence in school and out curtailed, some folks despise us and some of us find it hard to love our job. It is not yet the most urgently sought-for service by men of spirit and adventure. You have difficulty in finding parents who

declare, "My boy is unusually able; I want to give him a fine place in life; I'm fitting him to be a teacher." You are unable to persuade your friends to stop remarking that you could have been successful in some better business.

I begin to understand why the preservers of our civilization do not look forward to Monday morning with rapture. Because they don't, school is too often but a dull place. It has been so for at least three hundred and forty-one years, since the schoolboy went creeping like snail unwillingly to school, up to September, 1911, when the Brooklyn *Eagle* printed a big cartoon, "Back to the grind," depicting Tommy held by a sour-faced schoolma'am with his nose against the revolving stone.

But take the word of a man well on in years, who has tested the attractiveness of book-selling, railroading, lumbering, sailing before the mast, reporting for a newspaper, and passing all sorts of articles over a counter to every kind of person, who has asked lawyers and doctors and captains of industry how they like their business—there isn't a ground for reason that doesn't suggest its own cure. Every other place has worse features. You can convince yourself, as over-smart writers have done, that everything is wrong; the republic is a mistake; marriage is a failure, and life is not worth living.

Oh, fiddle-de-dee! Either admit that you prefer to be miserable or get out of the fog. There's one sure cure. Fall in love. That's the answer. Fall in love with your job. Distaste for teaching is a myth, a disease as foolish as belief in witches, dread of night air in a bedroom, or any other time-honored uninvestigated error. The elements of my business are the most delightful things in the world. My concern is with young folks. Every testimony of poetry, literature, history, comparative zoology, and the memories of personal experience declare children to belong among the greatly to be desired, even of such as the kingdom of heaven itself is composed.

It is not true that having to do with little ones is petty. The surgeons who are specialists on children are as manly as any men you know. Lorenz is a virile fellow, Colonel

Parker was as husky as you could wish. You don't have to acquire the taste for children, you are born with it. It does not fade away with your advancing years, but by some mysterious influence the older you grow the stronger, as Dr. Johnson demonstrated, your love of children waxes. Your business being, then, with this remarkably attractive material is further graced by the fact that growing, progress, improvement, is the essence. Think of it. Every other operative in the growth business, whether he is sheep-raiser, gardener, or house-builder enjoys his work. They all tell you so. Nothing pleases better than to see things grow. The charm that holds the laboratory worker even from his sleep and meals is yours for your whole life long. You may experiment and watch results and build for yourself and others a science of the growth of manhood and womanhood. That is what you are expected to do. To let teachers despise their business is wasteful, suicidal, and wicked. To give expression to the distaste is to create it. If I should take the happiest man on earth and put him to saying over and over again, "I am unhappy," I should make him most wretched. What would you think of a human being who would go about scattering the germs of disease among healthy people? These sour-faced sons or sisters of sorrow who take the pay of the people for gladdening the world, but in return howl at every effort for improving the service, bewailing their unhappy lot, must be enemies of the children and liars every one. For the teacher's opportunity really is tiptop. Even tho I can not make what my classmates are putting in the bank, the material and the processes I have to deal with are superior in interest to theirs. Osler told his medical students, "Wealth and fame come to but the lucky few, but the doctor who has a love of the science of his work enjoys a life of pleasure incomparable." That is even more true of my employment, for the temptations of wealth and fame are entirely absent from it. You knew when you took it up that neither of these distractions belongs. The joy of it is in the work itself. Many a business man takes teaching in the Sunday school as his pleasure, not because it is a change, but because children and teaching are

enjoyable. Your delight is awaiting you every Monday morning and they pay you money for enjoying it.

WORLD TIRED OF TIRED TEACHERS

The thing we need, says cheerful James Croswell, in this EDUCATIONAL REVIEW, is attitude of mind; this only will save the schools. You see, even James thinks education needs reform. Now the attitude of mind is that intimated by the man of Avon, who knew what joy in work is when he said,

> "For business that we love
> We rise betimes and go to with delight."

Which means, if I understand English, that just as soon as we purge out of our system the adventitious errors that we and others have permitted to gain currency contrary to the natural attractiveness of teaching children, we will recognize that it is our duty and advantage to love the business. At once we find ourselves looking forward to Monday morning as an occasion for rising betimes and rushing off to school with delight.

Froebel, when fifteen years old, was apprenticed to a forester. His first task was to make a list of the trees in a certain tract and to estimate their ages. The night before he was to begin this work his desire to get at it was so keen that he could not sleep. Before daylight he arose with that elation a boy feels on circus day. You know this Froebel. What was it that he called the mainspring of education? Love. Pestalozzi had repeated it before him. What is the essence of all the great educational reformers, Rousseau, Comenius, Luther, Spencer, Horace Mann, and Parker, but a repetition of this love idea? Who am I that should reject so obviously logical a principle and substitute for it sputtering, objection, criticism, and protests that the job is hard and hateful? You need not devise any more systems for us. The educations that failed of old time had system enough. The machine is all right, the fire is low.

Are you a head man in a school organization? You have

as manifold an opportunity as there are teachers under you. There can not be too much happiness among them. Laughter belongs in the schools along with noise and play. Your typewritten corrections, if you don't look out, only wound and cripple the people who should be by you preserved in a buoyant and inspiring temper. Many a superintendent have I seen grow waspish, a mere dealer in stings, because he didn't realize that for every reprimand he ought to give a praise. You can not model your administration on the severe practise of a soulless business corporation. The teaching force of America is sick. E. L. Stevens says all the teachers are neurasthenic: criticism paralyzes them. Mary Lincoln, reporter and writer, tells of having to leave out breakfast altogether because when she took up the paper and saw that her article, written the day before, had been cut she couldn't digest her food. Mary was a business woman. You know of teachers that so dread to open a letter from headquarters that receipt of one with the official stamp upsets them all day long. Charles Schwab doubled the capacity of the Homestead mills by jollying the workmen. They called him "Hurrah Charlie." The rooters on the benches cheer when the fine points are made. They tell the players they are good boys and sure to win. Charles Pratt, so successful in business that you would think he had rewards enough, confessed that in the maturity of his success nothing gave him so much power to do things as the declaration by some one who knew him that he had done some work well. The head schoolman has the greatest opportunity. It is to be looking for good in his staff and recognizing effort. Before long his very name will be a synonym for efficiency, for he is ever discovering and praising it.

HOW ONE MAN MANAGES

Charles Frohman, had he not gone to managing plays, would have made a prime school superintendent. "He has the worst memory for failures, the best for successes. If the run of a play is doubtful he will be found on the stage just inside the wings, where he so charges the spirits of his com-

pany with the surety of success that the production makes a go. Nothing will induce him to state a proposition negatively when he can put it into positive form. He has yet to write the letter that begins, 'I am sorry to say.' After rehearsal his first service is to reassure all the players that they have done well. Fifty times more is gotten from a pleased than from a frightened actor. 'The first thing to do,' said Frohman to a friend, 'before you can teach any one anything is to give him confidence. Nothing can be understood by an excited person. Calm first, then correct. Get people teachable before you try to teach them.' Seasoned actors claim they had rather have ten minutes' advice from Charles Frohman than ten weeks of the best professional stage director."

Who needs poise and confidence more than a teacher? Whose business is it to conserve it? Frohmanize yourself, superintendent, if you want success. We do not want you to baby us by calling every poor thing good. But ninety in a hundred of us can be trained to make good if we'll stop whining and be set to enjoying. Stop this perpetual correction business and praise more. Then round up the chronic mourners and cast them out of the schools. There is no need of being mushy about it, letting everything run down at the heel for fear of plain-speaking. No superintendent draws pay for mere smiles. But when a schoolman finds that the number of his haters in the ranks are notoriously many, isn't it time for a review of what the experts mean by *esprit de corps?* Loyalty isn't a one-sided virtue. Grant must be loyal, he thought, to private Allen and loyal to the nation. The superintendent, likewise. It may mean removal of the troublemaker double quick. What I said about tenure as a necessity for the independence of a teacher's life out of school has nothing to do with the absurdity of a tenure for paid destroyers of the teaching spirit. The great managers of men, Alexander, Xenophon, Cæsar, Napoleon, Washington, Lincoln, inspired them, breathed into them, and cherished in them and maintained in them the courage, belief, and confidence of success. No one person in a town could more quickly than a superintendent bring it about that teachers would look for-

ward with satisfaction to the end of a vacation or would rise betimes on Monday morning and go to business with delight.

But we can't afford to wait for others to make us return to the natural state of liking our business. The personal daily damage to ourselves that comes from any but an enthusiastic love of what we do is too dreadful. What is more dire than making a mess of one's life? And what other than the life of a teacher have the most of us to count on? Then by the fates, Horatio, I'll not spoil mine. I have lost from the dreams of my youth the steam yacht, the opera box, the country house, the saddle horse, the private car, the round-world trip, the means for generous hospitality, but I have found one thing which the best of poetic authority calls my blessing, one thing growing more interesting daily, my work.

Omar of Damascus proceeding homeward from Bagdad, passing thru a rocky defile, heard sweet sounds of music. As he proceeded further he came to a man sitting on a stone and playing on a lute. Omar observed that the instrument had but one string.

"Who art thou?" he asked, "and why playest thou on a single string?"

"My name is Hashem," replied the stranger. "I am a music teacher of Yemen. I had ten strings; but thieves fell upon me and robbed and beat me and broke all the strings of my lute save one; yet the matter of music is not how much but how good."

"In sooth," said Omar, "thou playest better on one than many who have all."

Thereat, behold a miracle! Ten golden strings appeared upon the lute, and Hashem lived many melodious years as court musician to Omar the Great.

Me? Let my name be Hashem and let me play on my one string this song:

> "I'm glad to go to school on Monday,
> On Tuesday I am gladder still."

For I've got to go on all my life teaching school or, if not, at least I've got to teach school while I'm teaching school,

and I can't afford to miss any of the fun of it; for every day I lose is just so many gone out of the only life I have.

THE UNHAPPY TEACHER A DEGENERATE

The Constitution gives me life and liberty and the pursuit of happiness. The stupid system that has grown up in America has taken away a good part of my liberty, but I mustn't let it take my life or my pursuit of happiness. Robert Grant reminds me that the fault of teaching is its lack of geniality: from this I conclude that the typical unhappy teacher is unnatural. I reach that conclusion thru what I have learned of evolution. I remember the sensation that Lewis McLouth made when he showed us in the normal school that the search for happiness is the force which has developed the amœba into man. We would make a sad mistake in going against nature by persisting in a distaste for one of the chief occupations of our waking hours. We would make a mistake in even neglecting an active search for happiness in our everyday occupation. To become less than a seeker after happiness is to degenerate. Joy doesn't come along of itself and nestle in my bosom. I have as much traditional and inherited gloom-power for myself and others as the poor creature who never heard of evolution. I could argue myself to agree with Plato or Bernard Shaw that life must be lived quite apart from hope of happiness, but what's the use when experiment demonstrates for me that for my own sake as well as for successfully teaching children the assertion of Aristotle, Pascal, Bentham, and Spencer, that happiness is a necessary accompaniment of the proper performance of the work of life, rings true?

I studied philosophy in college. They dwelt upon what Thales thought and all the others down to Hume and Reid and Kant and Hegel. I always yearned to reach the point where I could find what I thought myself. But the man of eminence who taught us, whose books were published abroad, who headed subscriptions for putting busts of philosophers in the museum, is only, to me, a memory of a dreamy-eyed, underfed gentleman using for support the two hind legs of

his chair. Everything else was up in the air. Long, long after came William James and showed me that every expounder of life has to work out the problem for himself, and that experiment and proof is as necessary in moral philosophy as in physics.

STRENGTH TO SPARE

So there you are. I have tried the experiment. I have used method, it is but little; I have savagely checked errors and corrected them, it goes but a span. But when I try the positive, not negative force, the search for merit to praise it, the will to make a school the cheerfulest, happiest spot in all the world, success comes smiling in and things move. For geniality, as Chesterton puts it, is "strength to spare." The supreme egoist can not have it. It goes with humility, self-denial, and generosity. If as a teacher I be a selfish man, disposed to draw attention to me, I reverse the natural direction of things. My scholastic function should not be to draw in but to give out. Radiation should be my business. That is the quality of geniality. The strength to spare is the positive belief that the children are good, not bad; that they are going to succeed, not fail; that they ought to be with me, not expelled out of my sight. Idleness, dulness, insolence, falsity are not going to disappear by my freezing them, but the innate virtues of humanity will be set growing by warmth. That is the keynote of the inspired volume William DeWitt Hyde has just issued: *The teacher's philosophy*. You ought to carry it in your pocket. This absolute need of a teacher with the teaching spirit, not the hating spirit, is what leads observers like Bardeen to believe that we have not yet won the right of the protection of tenure laws. If tenure holds in place traitors who hate their duties, then in God's name let us have none of it. I can not sympathize with the whiner. The service needs elation, exultation, high spirits, thankfulness for opportunity, certainty of success, belief, assurance, self-congratulation, determination to do better.

That's my business. If you please, I wish to be excused

from joining in singing, "Oh, it is hard to work for God." It doesn't strengthen me. I have better songs, thanks to old Charles Cotton.

> "Why call that sickness which is health,
> That persecution which is grace,
> That poverty which is true wealth,
> And that dishonor which is praise?
> There are no ills but what we make
> By giving shapes and names to things,
> Which is the dangerous mistake
> That causes all our sufferings."

Here, take the lute, and let's hear your song.

WILLIAM MCANDREW

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II

THE EDUCATION OF CHARLES DARWIN[1]

Darwin's education has been often condemned, but by none more severely than by himself. He admitted no claim to having been "produced" by either school or university. Shrewsbury, as a means of education to him, "was simply a blank," and his time at Edinburgh and Cambridge "was wasted, as far as the academical studies were concerned," as completely as it was at school. Nor was Professor Huxley less confident that all three institutions had alike failed in Darwin's case,[2] tho he does not explain why a boy sent to Shrewsbury should receive other than the classical education then in vogue, or why a youth sent to Edinburgh to study medicine or to Cambridge to study theology should complain if he were not turned out a naturalist.

But is it quite certain that Darwin gained nothing whatever from his work at school, indirectly if not directly? If so, why did he send his eldest son to Rugby? Is it fair to blame the authorities of the two universities for their failure to detect the germs of the future naturalist? Should Sedgwick at Cambridge be censured because Jameson at Edinburgh appeared dull and was behind the times? Is it not just possible that Darwin's high spirits and sensitiveness, that a kind of passive resistance on his part, were responsible for the fact that his early education was less useful than it might have been to him in his after-life?

Darwin was born on February 12, 1809. In the spring of 1817 he was sent to a day school at Shrewsbury, and in the summer of the following year to the grammar school, then under the guidance of Dr. Butler. Here he stayed for seven

[1] From *The school world* (London).

[2] *Collected essays:* II. Darwiniana, p. 253-302.

years, until the midsummer of 1825. "Nothing," he says, "could have been worse for the development of my mind than Dr. Butler's school, as it was strictly classical, nothing else being taught, except a little ancient geography and history. . . . Especial attention was paid to verse-making, and this I could never do well. . . . Much attention was paid to learning by heart the lessons of the previous day; this I could effect with great facility, learning forty or fifty lines of Virgil or Homer, whilst I was in morning chapel; but this exercise was utterly useless, for every verse was forgotten in forty-eight hours. I was not idle, and with the exception of versification, generally worked conscientiously at my classics, not using cribs." Whilst he was at school, he studied Euclid with a private tutor, and made chemical experiments with his brother. He took pleasure in reading the poems of Thomson, Byron, and Scott, and would pore for hours over the historical plays of Shakspere. It was during this period, also, that the wish first arose in him to travel in distant countries, that he became an enthusiastic collector of insects and an observer of the habits of birds, and, towards the latter part of it, that he became "passionately fond of shooting."

Leaving school at a rather earlier age than usual, he was sent to study medicine at Edinburgh University in October, 1825. "The instruction at Edinburgh was altogether by lectures, and these were intolerably dull, with the exception of those on chemistry by Hope." The lectures on *materia medica* at eight on a winter's morning were, even after the lapse of half a century, "something fearful to remember." Those on human anatomy were felt to be as dull as the professor himself. Besides going to lectures, Darwin attended regularly the clinical wards in the hospital. "I also attended on two occasions the operating theater in the hospital at Edinburgh, and saw two very bad operations, one on a child, but I rushed away before they were completed. Nor did I ever attend again, for hardly any inducement would have been strong enough to make me do so; this being long before the blessed days of chloroform." During the second session, he went to Professor Jameson's lectures on geology and zoology; but, he

adds, "they were incredibly dull. The sole effect they produced on me was the determination never as long as I lived to read a book on geology, or in any way study the science." The dulness of the professor of anatomy and the unpleasantness of anatomical work kept Darwin away from the dissecting room. That he was not urged to practise dissection he afterwards recognized as one of the greatest evils of his life. "I should soon," he says, "have got over my disgust; and the practise would have been invaluable for all my future work. This has been an irremediable evil, as well as my incapacity to draw."

It is evident that Darwin studied medicine in a half-hearted way. He realized about that time that his father would leave enough to support him, he disliked the dissecting room, and he dreaded the operating theater. His father, seeing that the prospect of a physician's life was distasteful, suggested that he should become a clergyman; and, with this object in view, Darwin proceeded to Christ's College, Cambridge, in January, 1828. This was a term later than usual, but in the preceding two years he had forgotten most of the Latin and Greek that he had learned at school, and several months were required for its recovery.

At Cambridge he attempted mathematics, but was impatient at his inability to grasp the meaning of the early steps in algebra. The subject grew repugnant to him, and he gave it up—to his regret in after-life. He attended a few college lectures in classics, but the attendance was almost nominal. Little, clearly, was gained from the efforts of his tutors, and the fact that he past the little-go and the final examination for the ordinary degree with some credit is to be attributed mainly to his private reading. At Cambridge, as at Edinburgh, Darwin owed most to the friendships won by his attractive personality. He soon became intimate with Henslow, the professor of botany. Tho he did not study the subject, he attended some of Henslow's lectures, and liked them for their extreme clearness and admirable illustrations, and he also accompanied the class on field excursions to distant places. "But I was so sickened with lectures at Edinburgh," he remarks, "that I did not even

attend Sedgwick's eloquent and interesting lectures. Had I done so I should probably have become a geologist earlier than I did." Darwin became acquainted also with other men of note older than himself—with Whewell, then professor of mineralogy, the Reverend Leonard Jenys, the Reverend Richard Dawes (afterwards dean of Hereford), and, but only at the end of his time, with Sedgwick. His craving for foreign travel was stimulated by reading Humboldt's *Personal narrative,* while his passion for collecting beetles was satisfied by many an excursion in the Fen country and elsewhere.

Darwin left Cambridge in June, 1831. In August, on the recommendation of Henslow, he accompanied Sedgwick in one of his celebrated investigations in North Wales. At the end of the month he returned to Staffordshire for shooting; "for at that time I should have thought myself mad to give up the first days of partridge-shooting for geology or any other science." It was then that he received thru Henslow, and ultimately accepted, the invitation to accompany Captain Fitzroy on his voyage round the world—a voyage which lasted very nearly five years, and to which, as he writes half a century afterwards, he always felt that he owed the first real training or education of his mind. With this voyage, however, we are not now concerned. His education, as it is ordinarily understood, was at an end. He was free to make the most of the habits of application ingrained at school, and of his enthusiasm and passionate love for collecting and observing which were innate and unfostered by those under whose tuition he had been placed.[8]

Was Darwin's time at school and university so entirely wasted that he could afterwards maintain that all that he had learned of any value had been self-taught? The total loss of seven years is a heavy charge to bring against any school. Whether the blame should rest with the school, with the parent who chose it, or with the system of education at the time which left little else to choose from, is not now a matter of any moment. The fact remains that, day after day for

[8] *The life and letters of Charles Darwin,* vol. i, p. 27-58, 355, 381-387; vol. iii, p. 177.

seven years, Darwin's life was spent in learning the grammars of two dead languages, in translating classical authors and learning selected passages in the original, and in the composition of Greek and Latin verse. A wretched system, he declares it in after-years to be, possessing no merits whatever. "No one," he writes in 1852, "can more truly despise the old stereotyped stupid classical education than I do."

It is not difficult to imagine the Darwin of 1818 to 1825. He was evidently a cheery lad, high-spirited, making many friends, and conscientious and high-principled beyond the wont of schoolboys. There was none of the slackness of the modern youth about Darwin, for he was keen and enthusiastic. He was so deeply interested in chemistry while at school that he often used to go on working until rather late at night. The clear geometrical proofs of Euclid gave him intense satisfaction, and the explanation of the principle of the vernier delighted him. His taste for angling was so strong that he "would sit for any number of hours on the bank of a river or pond watching the float." He had a passion for collecting insects, and collected minerals with much zeal. "In the latter part of my school life I became passionately fond of shooting. I do not believe," he adds, "that any one could have shown more zeal for the most holy cause than I did for shooting birds."

Unfortunately, this keenness did not extend to the subjects which formed the school course. His mind seems to have dwelt, in school and out of school, on his favorite pursuits. His best side was turned away from his teachers, so that he succeeded in passing thru school, from one form-master to another, without manifesting any sign of his unusual ability. "When I left the school," he says, "I was for my age neither high nor low in it; and I believe that I was considered by all my masters and by my father as a very ordinary boy, rather below the common standard in intellect."

Yet surely his work, which was done conscientiously, his translations that were made without the aid of cribs, can not have been useless. We may look in vain, perhaps, for any effect upon his style. Indeed, the difficulty which he experi-

enced in writing a simple English sentence remained to the end. But the wrestling with many an obscure passage in Latin or Greek, the struggle to extort its meaning, must have strengthened his mind, even if the process took place unconsciously. Again, tho in later life he depreciated his own memory, the power which he acquired of learning forty or fifty lines of Virgil or Homer during the short space of morning chapel must have been a valuable one. Every line may have been forgotten in forty-eight hours, and thus become useless in his own verse compositions; but the "barrister's memory" which he so acquired of collecting many data at once in his mind and forgetting them when no longer wanted must have been of service to him when afterwards marshaling large masses of facts for his great works.

These results, such as they are, can not, of course, be placed in the balance against the general waste of time. They are not to be despised, but they might have been attained equally well in other and more profitable ways. The one great lesson Darwin learned at school arose from the compulsion to do unpleasant work. It is, perhaps, the chief lesson that can be learned at any school, the only discipline which some people experience in the course of their lives. Darwin was freed from the restraints of school at a somewhat early age. He had not the same inducements to work as his equally youthful fellow-students at Edinburgh; and, as the first results of his freedom, he allowed his own tastes and feelings to influence his attendance in the operating theater and dissecting room. But the effects of the early restraint were by no means lost, and they seem to me to exhibit themselves often in later life—in, for instance, his determination to finish his long voyage when he was tempted on the coast of South America to shorten it, in the eight or nine years spent in the study of the Cirrepedia, but most of all in the twenty-two years' preparation for the *Origin of species*. "A boy," he wrote, "who has learnt to stick at Latin and conquer its difficulties, ought to be able to stick at any labor." And this was probably the reason why, after much hesitation, he sent his eldest son to Rugby.

If Darwin felt that his time at Shrewsbury was wasted, he soon came to the conclusion that the Edinburgh lectures were no change for the better. As regards the professor of anatomy, whose lectures were as dull as himself, Darwin's dislike seems to have been only too well founded. His lectures were approximately repetitions of those which his grandfather, who founded the medical school, had given before him. His own works, when he ventured to be original, have been described as confused, prolix, and illogical, his observations as imperfect, and his reading as superficial.[4] The professor of *materia medica,* whose lectures were delivered at eight on winter mornings, and who himself often started work five hours earlier, was of a different type; and Darwin's recollections may have been tinged by the conditions of attendance. He had been elected without opposition to this chair, in which "he achieved great success. He would work indefatigably, always improving his lectures and studying every new publication in medicine, British and foreign."[5] In the case of Professor Jameson, also, Darwin was apparently hasty in his dislike. "Jameson was a remarkable man," writes Professor George Wilson. "Grave, taciturn, and reserved in manner . . . he seemed much better fitted for the secluded life of a student than for the duties of a university chair. Nevertheless, there was in him a deep, quiet enthusiasm for his favorite science, which his ungeniality of nature could not prevent being contagious, and he became, what many of his brilliant colleagues failed to become, the founder of a school. The spectacle of his perseverance, earnestness, and lifelong devotion to his work overcame the effect of his taciturnity and reserve."[6]

At Cambridge the professoriate during Darwin's residence included some well-known names. Babbage and Airy occupied the mathematical chairs, Henslow was professor of botany, Sedgwick of geology, and Whewell of mineralogy. The chair of zoology was not then founded. A man reading

[4] *Dictionary of national biography,* vol. xxxviii, p. 181-182.
[5] *Dictionary of national biography,* vol. xvi, p. 163.
[6] G. Wilson and A. Geikie, *Memoir of Edward Forbes,* p. 108-109.

for the ordinary degree, with the intention afterwards of taking holy orders, would not, as a rule, aspire to attendance at professors' lectures. But Darwin differed in one respect from the ordinary undergraduate. Having begun residence in January, 1828, he past his final examination in January, 1831, and had to keep two more terms before taking his degree in the following June. It was then that Henslow persuaded him, in spite of his previous resolve, to take up the study of geology. Another man with Darwin's tastes, and with time enough and to spare, would naturally have sought the lectures of the eloquent Woodwardian professor, but Darwin was so "sickened" by his Edinburgh experiences that he refrained. The reason was a childish one, and the loss was more than Darwin's own. We know how much he gained from his brief training with Sedgwick in North Wales after the close of his Cambridge career. With fuller instruction from that inspiring teacher and a more intimate knowledge of the methods of investigation, it is probable that the admirable work which he accomplished on South American geology would have been still more varied and complete.

Darwin's experiences at Edinburgh and Cambridge were in one respect unfortunate. The course mapped out for him in each university was one for which he had little natural liking. Being able to satisfy his own innate tastes in other ways, being fond of sport, and having many congenial and high-spirited friends, the time past pleasantly enough. But in shunning the dissecting rooms at Edinburgh, in throwing up his mathematical studies at Cambridge, and in neglecting Sedgwick's brilliant lectures, it must be admitted that he acted impulsively and unreasonably; and it would seem unfair to throw the blame on the university authorities for Darwin's failure to avail himself of the instruction which they had provided.

What Darwin's education would have been if he could have had the ordering of it himself, with his own future to guide him, can be told almost in his own words. There can be no doubt that he would have replaced one or both of the dead languages by French and German. Drawing would certainly

have been included. Other subjects would have been introduced, if only to provide diversity, but he would have preferred those which exercise the observing and reasoning faculties, say, elementary science and geometry. He would, as already noted, have practised dissection. Nor would he have neglected the mere acquirement of general knowledge, such, I suppose, as is afforded by the early study of history and geography. In mathematics, he would have gone far enough to understand at least something of the great leading principles, "for men thus endowed seem to have an extra sense." There may be some doubt as to whether these principles would have been of the use that he anticipated; but there can be none as to the value of the other training. The difficulties encountered in mastering the German language would have provided in part the mental exercise for which the study of Latin and Greek has so long held a high place in our scheme of education. The knowledge of the language itself, the ability to translate it with ease, would have saved him many an hour of hard and weary labor. The power to draw with a fair approach to accuracy, and the attainment of some skill in dissecting, would have been of untold service in his future work. Nevertheless, it is open, I think, to doubt whether this training, which is now supplied on the modern side of every great school, is more effective to produce the men who do the world's work than the antiquated methods by which boys were taught to obey without question and to endure without complaint.

CHARLES DAVISON

LONDON

III

THE EFFICIENCY OF THE COLLEGE COURSE[1]

I. INTRODUCTION

The college challenged

The college and the college course is today subjected to criticism as never before. School men and business men, elevator manufacturers and efficiency engineers, high school superintendents and college presidents, are at work on the problem with enthusiasm, and, let us hope, with the promise of happy results. But let us not be worried. Other parts of our educational system, as well as other institutions of long standing and authority—the church, our legal procedure, and our governmental machinery—have also fallen on skeptical times. And it should be a comfort to the man who believes in the college to learn, precisely at this time when the college is under criticism, that the supposedly efficient American railway system is being run by the best American business brains with a waste of a million dollars a day; and that the manly art of bricklaying has been conducted since before the time of the Pharaohs on wasteful lines. Had the Hebrews had an efficiency engineer they would have been able both to get the straw and to make the bricks.

Then, too, the college should welcome criticism. In all lines of human activity inertia tends to keep us doing things in the same way, even after conditions have changed and methods which before were best have become second best. Institutions, like organisms, may have inherited organs which in the ancestral form were serviceable, but under the changed

[1] Read before the Ohio Eta chapter of Phi Beta Kappa, at Ohio Wesleyan University, Delaware, Ohio, November 14, 1911.

conditions are so no longer: and a useless appendix may produce inflammation and require an operation. Criticism can show faults or virtues; if faults, they should be remedied; if virtues, the college stands the more securely. And even ill-tempered and extreme criticism may be of service. The danger lies not in criticism, not in fault-finding even, but in that deadening habit of mind which assumes that what is, and what has been, is best and must remain.

The demand for efficiency a reasonable demand

The demand for efficiency is the demand that the college course should be useful, practical. We are told that it lacks, in this respect, more or less seriously. The question then is: Does the college course, as a whole and in its constituent parts, fit the student for life after leaving college? Not only this, but does it give him the best possible fit? Could the four years given to the college course be spent in any other way which would better fit for life? Human institutions are rarely perfectly adapted to the end in view, and, repeatedly, institutions of long life have, often thru inward change, often thru change in outside conditions, become far less adapted than they originally were to the ends they were devised to meet.

We must acknowledge the entire reasonableness of this demand that the college should be practical, useful, efficient. The course as a whole, its constituent parts, the environment in which it is carried on, and all accessory activities, should be judged, should stand or fall, as they can be shown to be or not to be useful for the end in view. Further, they are required not only to prove their usefulness, but they are required to show that they are at least as useful as other things which might be put in their place. The demand for efficiency is absolutely right. Complete or partial uselessness can hardly be used as an argument for anything.

If, however, we admit the demand for efficiency, the question at once arises, efficient for what? I answer, practically useful as a *preparation for life*. This again brings up two questions:

1. What is the life for which the college course is a preparation?

2. What is the particular function of the college in furnishing this preparation?

The life for which the college is a preparation

To raise the question in any form, of what life is, seems trite. But in order to prepare the way for certain positions to be taken later, I wish to emphasize one aspect of life—that life is the solution of problems. My own experience seems to show me that, whether I am at work or at play, my activity consists in devising means to meet the ends I have in view: that is, in the solution of problems which come to me one after another; one often leading to many others. I think this is the common experience. The problems may be slight or important; may involve small details which concern ourselves alone, or may have far-reaching consequences for others; and need the broadest knowledge and keenest intelligence that they may be solved in a manner consonant with the laws of our material and spiritual environment. Life, then, is the solution of problems; and any preparation for life must fit a man for the correct solution of his life's problems.

The peculiar province of the college

We prepare for life by living; learn to solve problems by solving them. Many institutions besides the school direct activity and so take part in this preparation for life—the home, the church, work and play, the social activities. It is well then to ask what the peculiar province of the college may be.

1. The aim of the college is not, and has not been, the preparation of the individual for his vocation. The plumber learns his trade as an apprentice by watching the master workman, doing first simple and then more complex work, until he himself in turn becomes a master. Some trades and professions which were formerly learned in the same way, such as engineering and law, have become so complex that the

older system of learning them has become impracticable, and schools have been established to teach these subjects. But as yet the college has not generally undertaken to train for the professions, except for those of teacher and preacher. Whether technical and what we may for purposes of reference call liberal education will be carried on in the same institution, seems to be today chiefly a matter of money resources. I believe it may prove advantageous to the technical students that they should be combined; and I am not sure that equal advantage would not accrue to the "arts" student. A culture that won't wear in contact with the world's work is like a religion that is no good except on Sunday. Personally I am not worried over the entrance of the vocational studies into the college curriculum; and only note the interesting fact that many of the opponents of such a change are teachers of language and literature who are helping to prepare young women and men for the profession of teaching. To date, however, it is not the function of the college to fit the student for his profession.

2. Man has lived on this earth of ours no one knows how long. But in the last five thousand years he has learned some things and done more. This record of living, of doing and knowing, we have in our history, social institutions, literature, science—a rich and growing inheritance which each generation passes on to the next. It makes what has been termed the humanities. As one specially interested in science, I am not going to speak of "science and humanities," but shall include man's knowledge of the world in which he lives and by which he was fashioned physically and mentally—the knowledge which we call science—I shall include this among the humanities, and use the word humanities to include man's knowledge of his environment and of his experiences in his environment. Science and humanities can not be divided without harm to both. Now this great inheritance of the humanities it is the business of the schools to vitalize for each new generation. And it is also the business of the schools to gather in and sort the important contributions which each passing generation adds to the already existing stock.

In the schools, in dealing with these great fields of thought, with history, science, literature, the student learns what the problems are which have confronted man in the past, what the solutions have been, what the unsolved problems of life are. He gets the broader outlines of that environment in which he is to live, gets that perspective, that view of life, without which his own energy may be ineffective and wasted. In dealing with this material he develops that keenness of intellect, that ability to see clearly and discriminate precisely and nicely, which is so sadly lacking in the uneducated and half-educated man.

And is this college work practically useful? In a certain sense, no. The ditch-digger will dig his ditch as well without it, nearly. The engineer will build his bridge as well without it, nearly. The surgeon's knife may cut as well. But we are not ditch-diggers, engineers, surgeons, first of all, but men; and we wish to live, not simply to drudge; to live as broadly and as widely as possible. We must have, as men, the broad vision, and act with the widest outlook open to us. The trouble with many who are calling for practical work from the college is their gross materialism. Their only realities are wood, stone, mortar, and iron; their only measure of value, material success. Against this materialism, this narrowing of life, the colleges have always protested; they have always stood for ideas; for the things of the spirit of man; for the highest, the spiritual values. For this training of the whole man for the best action in view of the total situation we have our higher education of college and university. There chiefly, but not wholly, have been trained the men whose ideas and ideals have most enriched our common life.

Does the college fulfil this high purpose we claim for it? No, not fully. It can not; it has not the time. But it aims to give, and in many cases succeeds in giving, the point of view and the start; and after college days the work so begun has been carried further than the college itself could possibly carry it. The college is not a "finishing school."

Can not this broad conception of life, this best inheritance

of the past, be gained outside the college? Yes, it can be, and in many cases is. The church, the home, the lower school course may give the man his start, and he may get the point of view of the college man without ever having been within the college walls. Religion may be developed outside the church, and men may become wise in science, literature, and philosophy outside the schools; but it still remains true that as the church is the normal means for cultivating the religious life, so the school is the normal place for getting in touch with the world's experience.

Is not this work of the college the same as that of the high school and university? It would seem so. No sharp line can be drawn between the work of the three. In each successive stage the student is getting a better knowledge of one large complex subject. The difference in method in the three should not be great. If we make it great we are making arbitrary and artificial distinctions.

In concluding this preliminary statement I may sum up what has been said as follows: The college prepares for life by introducing the student in some detail to that knowledge of human history and human achievement which is the necessary background for the broadest and happiest living; and in so doing it trains him to that keenness of mind which will enable him to judge surely and readily of the great issues of life. This is the purpose, in my mind, of the college. I believe it to be a vitally necessary work in the world; to save us from the crude materialism so rampant today. I admit, of course, that church and home and state work to the same end; that the college does not do it all. The question now arises:

Is the college doing this work efficiently? I answer: In the large way, yes. I believe the college is doing its work as well as any other institution of society; as well as the family, the state, the church. I also believe that not one of these different institutions is living up to its possibilities; nor is the college, either. I shall speak of what I consider defects, defects which can be largely remedied, under four heads:

1. The curriculum.
2. Classroom work and outside activities.

3. Classroom procedure.
4. The spirit of scholarship.

II. THE CURRICULUM

If the college course is to fit the student to deal with the problems he is to meet, the character of those problems will determine in large measure the studies in the college curriculum. Many of those problems are the same that busied the mind of man at the beginning of history. When Job asked, "If a man die shall he live again?" he was but repeating a question which had been a vital one to many before him and is still today a living issue. The meaning of life, of the world, of ourself, our neighbor—these are old questions, but are always new.

> "New wants, new ways, pert plans of change,
> New answers to old questions strange;
> But to the older questions still
> No new replies have come or will.
> New speed to buzz abroad and see
> Cities where one needs not to be;
> But no new way to dwell at home,
> Or there to make great friendships come;
> No novel way to seek or find
> True hearts and the heroic mind.
> Of atom force and chemic stew
> Nor Socrates nor Cæsar knew.
> But the old ages knew a plan—
> The lost art—how to mold a man."

And these old questions are practical questions, for on our answer to them our action very largely hangs. And we can never afford to leave out of our college or out of our individual curriculum the writings of the great poets and prose-writers who have grappled with, even if they have not answered them. The study of these great writers, great men, has always furnished and always will furnish the greatest inspiration and practical assistance in the solution of the problems of each succeeding age. I include, of course, here the Bible. It is coming into our colleges at the same time that it is being thrown out of our public schools. The equal of the best

Latin and Greek classics in the beauty of its simplicity, and their great superior in its hold on spiritual truth, it is to our lasting discredit that a mixture of cowardice and sectarianism has resulted in excluding from our public schools this greatest educational classic the world has ever known. It will come back again, but the loss in the meantime is great.

Other problems arise from the particular social environment in which man is placed. He must play his part in the social and political group into which he is born. He must understand those social and political conditions; hence the need of the group of social sciences in the college curriculum; of history, economics, sociology. Here come in courses in general European and American history. The former, in particular, should furnish that outline of the progress of events and that more important because more fundamental progress of ideas and thoughts, into which later detailed studies may be fitted.

The great growth of our knowledge of material nature, of its influence on human life, and of its application to the improvement of human conditions has, in the last half-century particularly, brought physical science to the front, and forced its recognition in our college courses.

Both the increasing complexity of society and this increasing knowledge of the material world have furnished new problems demanding solution, and have modified in many cases the old questions, so that even for an appreciation of the old questions these new studies are needed.

I believe therefore that these three groups of studies,

The great writers or classics,

History and the social sciences,

Physical sciences,

should constitute the major part of the college course, because they give us the knowledge we need in order to solve the large problems of life wisely. They also lend themselves to classroom study by the method of solution-of-problems (to be mentioned later); for in the study of each of these large subjects occur problems of all degrees of complexity, those suited to beginners, to advanced students, and to specialists. I do

not care about the order in which they are named, for each one is an essential element of any education which is to be broad and liberating; that is, freeing from bonds of tradition, prejudice, and ignorance. These studies are all well represented in the college curriculum of today. The only criticism which can be made is that they are not emphasized as the most important.

Two subjects have been purposely omitted from the preceding enumeration, mathematics and foreign languages: subjects which in the past have bulked large in the educational curriculum, but which now seem to be taking a less important place. It is a question if either of these furnish either materials which can be used in the solution of our problems, or training in the methods by which solutions are to be made.

Mathematics appeals to one as a subject beautiful in itself, as a tool in the sciences, and as a training in a certain kind of thinking. However, the mathematical method of thinking is not that which is followed or can wisely be followed in the solution of our ordinary problems. Mathematical accuracy is not applicable outside the field of mathematics itself. I remember criticizing a student in my class in geology for his inaccurate work. He replied that he was conscious of the fault, and had taken a course in calculus to help him. But the kind of accuracy which he learned in mathematics had not helped him in science, and was not the kind needed in most work, where a statement may be all the way from wholly wrong, thru varying degrees of rightness, to a precise statement of the facts. This kind of training in accuracy can be had better in work in literature, science, and history than in mathematics. Therefore, while granting fully the claims of mathematics to furnish training of a special kind, and while I believe a thoro training in mathematics is desirable for the scientific and engineering student, I do not think it gives the general student the educational training which may be obtained from other subjects which at the same time give needed information.

The great emphasis which has been placed on the study of foreign languages seems to me the most wasteful thing in

our modern high school and college curriculum. An orthodox student of the Bible might believe that after the fall of Adam the greatest calamity of history was the fall of the Tower of Babel and the ensuing confusion of tongues. And if the fall of Adam was, as some believe, a fall up, then surely the fall of Babel was the worst evil that ever came to man here below. Indeed, it shakes one's faith in the literal truthfulness of all parts of the Bible to be told that "when the whole earth was of one language and one speech" the Almighty brought about a condition which was certain to result in national and racial estrangement, and act as a barrier to the spread of knowledge, of arts, and of religion! It can not be too emphatically stated that language is a tool, a means to an end; in the case of an ancient language, a key to the literature; of a modern language, a key to modern literature and a means of communication with our contemporaries. There are certain values, of course, in the study of language as language, but values small out of all proportion to the labor which is expended on them. If language leads to literature, well and good; or to ability to use it in speech, good. But to put the emphasis on the training in language study and not on its use as an avenue to literature is to give away the case. The language of some of the advocates of Latin and Greek shows at times a bigotry fully equal to that of some of their scientific brethren. For example, the following, taken from a recent book, Chapman's *Learning and other essays*—a book commended in the *Nation* for its attitude to the classics, occurs this statement, characteristic of the spirit of the essay:

"Science knows that a queen bee can be produced by care and feeding, but it does not as yet know that every man who has had a little Greek and Latin in his youth belongs to a different species from the ignorant man. No matter how little it may have been, it reclassifies him. There is more kinship between that man and a great scholar than there is between the same man and some one who has had no classics at all: he breathes from a different part of his anatomy." What confidence can one have in the mental processes of one

who identifies an "ignorant man" with "one who has not had a little Greek and Latin in his youth," and uses the term "classics" as synonymous with "a little, no matter how little, Greek and Latin"? Yet Mr. Chapman's statement is true; science does not know these things; nor does any one else. And science, perhaps unwittingly, regards the man "who breathes from a different part of his anatomy" as a monstrosity. One may be pardoned for asking from what part of his anatomy the student of Greek and Latin does breathe.

This incident illustrates what may be called the language worship of many advocates of language study, the confusion of means with end; imputing to language study the values which lie in a vital understanding of its literature. Emerson, who drew as deeply as any American from the well of ancient culture, says, "I do not hesitate to read all the books I have named, and all good books, in translations. What is really best in any book is translatable, any real insight or broad human sentiment. I should as soon think of swimming across Charles River when I want to go to Boston, as of reading all my books in originals when I have them rendered for me in my mother tongue."

The very history of the entrance of language into the curriculum of schools bears out the statement that language is a tool. Latin is there because it was the language of learning in the Middle Ages, the only language in universal use among the nations left from the break up of the Roman empire: the only means of avoiding the study of the language or dialects of the separate countries. It was kept, partly thru inertia, partly because it was the means of access to Latin classical authors. Greek came in with the rediscovery of the Greek classical writers. Hebrew for the knowledge of the Old Testament; German and French when men came to see that even modern literature held what other nations could not afford to lose.

And how wasteful, in this view, is, on the whole, our college study of foreign languages. Our graduates go out having studied commonly three, often four, languages, wholly unable to read easily any one of them. They have not seen the forest

for the trees. The study of language the vehicle has kept them from an appreciation of the vital part, the literature. And if they say they have had mental training from the language study, one can think only that this repetition of training in one language after another has been wasteful on account of duplication, and that it has kept them from other more useful studies, which also have their value in training the mind. It certainly is an interesting fact that that people who showed in many respects unrivaled keenness of insight and precision of expression—the Greeks—knew no language but their own, and considered foreign tongues rough and barbarous.

The solution of the problem of foreign languages in the school course is not easy. At present it would seem as if the solution were being reached by the elimination of language. Perhaps a tentative solution may lie in the direction of reducing the number of languages any one student may take to one, or at most, two, but requiring that the language taken should be carried to the point where it can be easily read, the student being required to pass an "efficiency test" before being allowed to drop the language. Surely it were better that one language should be mastered than that the student should acquire a smattering of several. Nor can the teachers [2] be wholly exonerated from blame for the present unsatisfactory condition of Greek and Latin. I presume my own experience in the study of Latin and Greek is not unusual. After six years of the study of Latin I had reached the place where I was beginning to read the language with some ease and pleasure; after six years of Greek I was not in sight of that place. I am not ashamed of my record in Greek and Latin; it was at least up to the average; and I have the average student in mind all thru this discussion; but I do blame the methods in use for my failure to read Latin and Greek with ease after that length of study. And conditions are today not materially different.

[2] See in this connection Babbitt, *Literature and the American college* (Houghton, Mifflin and Co.), especially chapter vi, also James's *Memories and studies* (Longmans, Green, and Co.), chapter xiii.

For the average student there should be less required language, but if any foreign language is taken it should be carried to the point where it can be used. And for the student who is interested in language and elects it, there should be large amounts of the language taken, and it should be taught so that relatively early he shall come to a reading knowledge.

The emphasis placed on language in high school and college is considered wasteful for the following reasons:

1. Students whose natural endowments and tastes do not favor these studies, and who are required to take them in the early part of the college course, often shirk that work and acquire bad general habits of study.

2. Many students, surfeited with these studies, drop out before completing the college course, without having had the more broadening studies of the latter half of the course, and without that intellectual awakening which might have been theirs had a varied intellectual menu been earlier provided.

3. These studies crowd out other studies which are quite as well fitted to serve as means of mental training, and which are more akin in subject-matter to the things which are to engage the student's attention on leaving college. They make it difficult for him to get a broad training in science, literature, and history.

4. The emphasis placed by the college on languages for entrance requirements has hurt the secondary schools, by compelling them to put the emphasis on language, and so lessening their value as fitting schools for the community in which they live. Fortunately for all concerned, the high schools are beginning to resist the pressure of the college. The college has a right to insist that the work of the high school, in so far as it is preparatory for college, shall be well done. But the high schools have the right to decide *what* subjects best fit their graduates for the life into which most of them go. The state universities are beginning to accept the decision of the high schools in this respect, and the other colleges must do the same if they are to stay in the running.

III. CLASSROOM WORK AND OUTSIDE ACTIVITIES

It is a matter of common complaint among college teachers that students neglect the classroom work in favor of outside matters—social engagements, athletic and other organizations—that the main circus is neglected for the side shows, to use ex-President Woodrow Wilson's illustration. Many students look on the college course as "four happy years between high school and business." A motto hanging in a student's room and quoted in the current *Nation* is interesting: "There is just this advantage about study, that it shows by contrast the value of those things for which we really come to college." That this spirit is common, even if not general, is well known.

If one looks for the cause of such a condition it may be found in part in the impractical character of many of the college studies; their failure to relate themselves to life. This may be due either to the nature of the study or to the method of teaching. A second reason may lie in human inertia. I doubt, however, if this acts as strongly with students as with teachers; for most young men of college age show abundant activity along some line. Another reason lies in the greater opportunity a student finds for self-expression in fraternity or athletic life, or in connection with the work of the various college organizations; an opportunity which is denied him in many kinds of classroom work, but to which he notably responds when it is afforded him in certain work, like that of intercollegiate debate, for instance.

Finally, and most important, is the attitude of parents and friends at home, their failure to appreciate the scholastic side of college work; the attitude towards the college of the business element of the community from which the student comes.

Now, while recognizing the importance of the outside activities as a means of self-expression and as a valuable training for the student, and while admitting that the "grind" fails to get fullest value from the college course, it would seem that the college must maintain the predominant importance of the classroom side of the college work. It is for that that the student is in college and not at home in business. It may be

true, I believe it is, that the college can do much toward making the classroom work more practical and interesting; in a word, more vital. And yet, between the position of the student who holds that the college course is to be "four happy years between high school and business" and the position of the college, a deep and impassable gulf is fixt. The difference is a difference in kind, akin to that between the clean and unclean man morally. No truce is possible. If the college is to fulfil its ideal and do its work it must throw out its gentlemanly loafers and work with those who come to its doors for what the college is there to give, and not permit the domination of the side shows. In the colleges generally this is being done. Standards are rising. Grades higher than pass grades are being required for graduation. The introduction of majors is another step in the same direction. And in many colleges a marked advance is being made in the thoroness with which students who, after a fair trial, can not or will not meet the standards, are being weeded out. Most of us adjust ourselves to our special environment; so does the college student. His easy-going methods are often but an adjustment to easy-going college requirements; to snap courses, to easy grading, and to an apparent indifference on the part of a respectable proportion of the teaching force to scholarly ideals.

IV. METHODS OF CLASSROOM PROCEDURE

If life is the solution of problems, and if these solutions have to be obtained by the individual largely unaided, the college course should develop in the student in the highest degree initiative and resourcefulness. If this is to be the aim, certain conclusions would seem to be true regarding classroom work.

1. *Creative as against receptive work by students*

Perhaps I can make my meaning clearer if I describe what I consider the worst method of teaching, the pure lecture

system. In this case the instructor lectures, the student takes notes, and is subjected at certain intervals to written quizzes. I have described this method in its worst form. Even a course so conducted may be of high value, but such a course is not up to its possibilities. Nearly as bad is recitation from a textbook, in the case where the student merely repeats the statements of the text. Both of these methods are at fault because the student's attitude is almost wholly receptive; he does not get into the game and his interest is not aroused. The demands on his thinking powers are not sufficient to command his respect.

Quite the opposite is the case where, with a textbook or assigned reading as a basis and a source of facts, the recitation is used for cross-questioning, for reworking and reshaping the text material and bringing out its relations and implications. The part the student takes here is greater, his ingenuity and mental keenness are taxed, and the recitation ceases to be a memory exercise and becomes really a reasoning process. A further progress is made when the subject is developed by problems set the student. This method is quite largely followed in mathematics, and the terror which "originals" inspire is a striking testimony to the weakness of the previous school training in developing the individual's powers. Yet we know that the originals are the means by which the mathematical sheep and goats are separated; that the student who is regularly balked by the original problems simply has not got mathematics into his system. We compromise and pass the student who can't work originals, but if we were to insist on the student really mastering the subject, we should require also the solution of original problems. The problem method was applied to the study of law at the Harvard Law School when the "case" method replaced, with marked success, the older method of presentation of principles with the use of cases as illustrations. As we are to spend our time later in the solution of problems, would it not be the part of wisdom to acquire the habit early? in college? in the high school? Why not still earlier? Certainly the marked inability of the majority of college students to deal intelligently and inde-

pendently with matters of scholarship is not creditable to our educational system.

Most of our college work is suited to a large development of the problem method. It can be applied in science, in literature, and in the social sciences. It may be that some of the lack of respect that students have for college work is due to the fact that in many cases real intellectual ability is not called for, but merely memory. The persevering grind seems to do as well as the brainier fellow. It might be well if our grading were so done that it were impossible for the mere grind to get an A or even a B; these grades being reserved for students who show original intellectual ability. When it is a fact that high grades mean unusual ability and not simply application, high college standing may be more attractive to some to whom it does not now appeal.

Our non-problem method is probably unconsciously furthered by the desire to make a complete and systematic presentation of the subject as a whole. To a considerable extent this may be necessary in elementary courses. I do not believe it is so necessary in any later courses. There the student should be led to deal easily with the subject-matter of the study by the solution of problems. This method leads naturally to the research method in more advanced courses.

2. *Close and accurate thinking*

The one chief difficulty in my experience as a teacher is the task of getting clear and accurate thinking from my students—and from their instructor. By close and accurate thinking I mean a clear, correct, and full conception of a fact, situation, or principle, and an understanding of the relation of such fact or principle to other knowledge which may stand to it as cause or effect. Repeatedly, cross-questioning in class shows that the student has misconceived a situation by omitting or failing to realize important elements; or that even when a situation has been realized the mind has not gone back for an explanation, or forward to evident conclusions. And inability on the part of the student to work over a subject

and to give it expression in a form different from the text and yet true is the rule rather than the exception.

There are several reasons for this situation. In the first place, the hardest thing to do is to think. The cynic's proverb, "You can lead an ass to knowledge but you can not make him think," is true of the many who are asses, and of many others who are not.

Then the training in school, high school, and college has been entirely inadequate; too much training of memory, too little of the reasoning powers. This is due in part to the methods employed, and in part to the fact that classes are everywhere too large, and that to compel thinking and close thinking on the part of students takes time, and requires a degree of attention to the student which is not often given. But beyond that there is in many cases a moral cowardice on the part of the teacher in the lower schools, who helps in a fatal "babying" process which pushes the student thru school untrained and uneducated; and on the part of some of us who as college instructors are unwilling to put on the screws and see that good clean work is done or no credit given.

It should be considered a matter of shame by a student if he

1. Can not use clear idiomatic English.

2. Can not talk about the matter in hand without going off into irrelevant things.

3. Can not define correctly the words he uses, or locate the places he describes.

4. Can not recombine the intellectual elements he possesses to meet the requirements of a new situation.

5. Can not talk as sanely about intellectual things as he does about football, college politics, or an editorial in the college paper.

And it should be a matter for an instructor to be ashamed of if these things can go on unchallenged in his classroom. That so much of it does go on shows that our system is vitally deficient in important respects.

V. THE SPIRIT OF SCHOLARSHIP

I speak last of the spirit which should infuse the college, the spirit of scholarship, the most intangible thing about the college, and the most important. With it, even if the curriculum is out of date and classroom methods are deficient, the college does its work; without it, there is disaster.

What is the spirit of scholarship? It is hard to define. I can suggest it by two quotations, one from the late Professor Cooke of Harvard, who says:

> "The great pioneers of science have been men of ideals, but men whose vivid imaginations were regulated by education, and chastened by wisdom. They have been men of courage and perseverance, who followed out their convictions through every discouragement. They have been men of entire truthfulness who have never hesitated to submit their doctrines to the test of crucial experiments and to abide by the issue. They have been men of the most scrupulous conscientiousness in attention to minute details, regarding themselves as responsible to the Giver of all truth for accuracy in every observation, and for exactness in every statement. Finally, they have been men of modesty and of reserve in judgment, realizing, as no other men ever have, how boundless is truth; how limited knowledge; how intricate the problem of nature; how weak in comparison the intellect of man."

And Lowell's lines on Jeffries Wyman say the same:

> "The wisest man could ask no more of fate
> Than to be simple, modest, manly, true;
> Safe from the Many, honored by the Few:
> To count as naught in world or church or state;
> But inwardly in secret to be great;
> To feel mysterious Nature ever new;
> To touch, if not to grasp, her endless clew,
> And learn by each discovery how to wait.
> He widened knowledge and escaped the praise;
> He wisely taught because more wise to learn;
> He toiled for Science, not to draw men's gaze,
> But for her lore of self-denial stern.
> That such a soul could spring from our decays
> Fans the soul's nobler faith until it burn."

All of us who are students should partake in some large measure of this spirit of the great scholar. Add to this larger interest in the things of the mind a desire and an ability to

share these things with the young men and women in our classes, in the belief that they may mean to them what they have already meant to us, and you have the teacher. The spirit of scholarship loves the world without, and the things of the spirit of man, for themselves, and for their value in this world.

This spirit of scholarship is not yet the spirit of the business world nor of the world of society, in the narrow sense, any more than is the spirit of religion. More money can not be made by one who is saturated with it. Often it will be less. It finds itself under criticism as not practical because it does not make directly for business; but it makes for the largest living, which is much more important than business. And the college must believe in its own mission of service to the higher life. If the college fulfils a necessary function, which no other institution does fulfil, its existence is justified; it is not a legitimate criticism that it does not also do other work.

Upon whom is the responsibility for establishing this tone of scholarship? Certainly not on the student, accumulating credit hours for his A.B. Not on the governing body, the board of trustees. Not primarily on the president, tho he can do much, both directly and indirectly, to serve that end. If the president emphasizes the importance of high scholarly ideals, and takes pains to let those who stand for those ideals know that he knows their purposes and their performance, it will do much. If he lets it be seen that other things, irrelevant things, perhaps, count large in the eyes of the administration, it will take away one of the strong inspirations to scholarly performance and scholarly ideals on the part of the faculty.

The responsibility of maintaining the ideals of scholarship rests primarily on the faculty. If the inspiration of letters is to be given to the students it is thru touch, in and outside the classroom, with teachers who have themselves felt that inspiration. "How shall he give light whose own soul is burned out to a dull dead grammatical cinder?" asked Carlyle. And how shall he who has felt the beauty and high worth of the world of science and letters, who has felt his

own soul burn within him as new fields open to his sight, how shall he avoid giving that same inspiration to the student who comes into close touch with him?

To do this requires an enthusiasm for scholarship which makes the instructor's work the big thing in life for him, and which leads to an uncalculating abandon of devotion to his work. The spirit of the workman who drops his tools precisely on the stroke of the clock is not the spirit of the scholar. He is interested in his work; all his thoughts and best powers go out to it. A great compliment was paid by an advanced student to his Harvard instructors when he said: "Harvard men have a relentless way of following down the truth." "Veritas" is the single word on the seal of our oldest college. The truth, nothing but the truth, and as much of the truth as he can in any way come by, not for the purpose of bolstering up personal theory or dogma, but because it is the truth and his truth, this is the ideal of the scholar.

With this enthusiasm for his work must go a breadth of knowledge and certainly a breadth of appreciation which is becoming uncommon in these days of specialization. We are all of us working in a single great realm of truth; why build our fences around our little plots of ground and shut our eyes and our sympathy to the equally valuable and equally interesting work which our neighbor near by may be doing? Every new point of view gives us a clearer view of this complex thing we call life, makes our judgment less liable to incompleteness, our action more likely to be true. Neither science, literature, nor philosophy sees the whole; still less does any one division among them. We have all of us our own field in which we should be experts, but we need, and our students need, the point of view, if not the detailed knowledge, of the other workers.

I have faith to believe that when the instructor thus does his work, when he becomes this kind of a man, when he meets the student in friendly sympathy, the student will not be culpably slow to respond.

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IV

THE COLLEGE ENTRANCE EXAMINATION BOARD

AN ANALYSIS OF THE EXAMINATIONS OF 1911

The rapid increase in the number of candidates examined each year by the College Entrance Examination Board encourages the belief that the statistics of the board's examinations will in the future shed light on many interesting questions connected with teaching in secondary schools. In June, 1901, when the board held its first set of examinations, less than one thousand candidates were examined; in June, 1911, over four thousand candidates took the board's examinations. While the board's examinations are now accepted as a satisfactory basis for admission by every college and university in the United States, a number of institutions continue to hold their own separate examinations. As a result the board does not yet examine even a majority of the candidates taking admission examinations in June. In June, 1911, between five and six thousand candidates took the separate examinations held by individual colleges and universities.

Of the 4,096 candidates examined by the board in 1911, 3,572 were examined in the North Atlantic States. It would appear, therefore, that the results of the board's examinations would shed but little light on educational conditions existing outside of the North Atlantic States. An attempt to draw any conclusions from the statistics published in the past in the Annual Report of the Secretary of the College Entrance Examination Board would appear almost futile, for the reason that various classes of candidates have been grouped together. Candidates prepared by the strongest secondary schools seeking admission to colleges that invariably insist upon admission examinations are grouped with candidates taking the board's examinations as a last resort, for example, candi-

dates whose teachers have refused to give them certificates on account of their poor school record, or candidates from secondary schools that have applied unsuccessfully for the privilege of certification.

The editor of the EDUCATIONAL REVIEW suggested to the writer that it might not be without interest to make an attempt to divide the candidates taking the board's examinations into different groups and to compare the results thus found. In the following tables the candidates examined in June, 1911, have been grouped according as they were taking preliminary or final examinations, and according as they were seeking admission to colleges accepting or not accepting secondary school certificates. They have been grouped also according as they were from schools in New England or schools in the Middle States, and according as they came from public schools or private schools. Again the results of the examinations taken by boys are compared with the results of the examinations taken by girls.

The number of candidates falling into each of the groups represented in the tables is indicated below:

Group 1,	All candidates examined	4,096
" 2,	Preliminary candidates for colleges not accepting certificates	878
" 3,	Final candidates for colleges not accepting certificates	788
" 4,	Preliminary candidates for women's colleges accepting certificates	309
" 5,	Final candidates for women's colleges accepting certificates	363
" 6,	Preliminary candidates for men's colleges accepting certificates	276
" 7,	Final candidates for men's colleges accepting certificates	480
" 8,	Boys from schools in New England	1,300
" 9,	Girls from schools in New England	458
" 10,	Boys from schools in the Middle States	1,245
" 11,	Girls from schools in the Middle States	495
" 12,	Candidates from public schools in the North Atlantic States	1,358
" 13,	Candidates from private schools in the North Atlantic States	2,162

An inspection of the tables makes it appear that at the examinations the candidates seeking admission to the colleges that admit only on examination made a far better showing than the candidates seeking admission to the certificating

colleges; that the candidates seeking admission to the women's certificating colleges made a better showing than the candidates seeking admission to the men's certificating colleges; and that in all cases the candidates taking preliminary examinations made a better showing than the candidates taking final examinations.

It appears that the schoolboys of New England made a much better showing than the schoolboys of the Middle States, but that the girls of the Middle States did better than the girls of New England. The candidates from private schools made, on the whole, a better showing than the candidates from public schools.

Looking at the several examination subjects we note that in English the girls did better than the boys. Even the girls going to certificating colleges did better than the boys going to examining colleges. In the Middle States the girls outstripped the boys, not only in English, but also in history, Latin, Greek, French, and German. They fell behind the boys in mathematics, physics, and chemistry. In New England the girls outstripped the boys only in English, Latin old requirements, and French, the boys having the better record in history, Latin new requirements, Greek, German, mathematics, physics, and chemistry. The superiority of the boys in mathematics, physics, and chemistry is especially noteworthy. In Greek the boys did far better than the girls in New England, but in the Middle States exactly the opposite is true.

The only subjects in which the public schools made a better showing than the private schools were Latin old requirements, physics, and drawing.

In order to guard against misinterpretation of the tables, it is necessary to have in mind certain considerations which, in part, explain them. In the first place, the colleges that accept secondary school certificates receive their best students on the basis of such certificates. Only those candidates whose preparation is of doubtful character or is known to be weak are, as a rule, required by such colleges to take admission examinations. That the candidates taking preliminary ex-

aminations make a showing so much better than that made by the candidates taking final examinations is probably due to the fact that teachers usually permit their pupils to take preliminary examinations only when the pupils can be recommended for examination on the ground of full and satisfactory preparation. Candidates taking final examinations, on the contrary, must in general offer all subjects for which they have not previously received credit, even tho their preparation in some of the subjects may be comparatively weak.

The tables show for each group of candidates the percentage obtaining ratings between 60 and 100. The secretary of the board has also constructed tables showing the percentage of candidates obtaining ratings between 75 and 100. They lead to practically the same conclusions. In New England, the boys and the girls are nearly equal in English, history, Latin, French, and German; but in Greek, mathematics, physics, and chemistry the boys are far ahead. In the Middle States the boys and girls are nearly equal in Latin and German; the girls are far ahead in English, history, Greek, and French; and the boys are far ahead in mathematics, physics, and chemistry.

It is interesting to note the varying proportion of candidates coming from public and private schools in the North Atlantic States. The numbers are given in the following tabular statement:

	PUBLIC SCHOOLS	PRIVATE SCHOOLS
Maine	24	10
New Hampshire	43	400
Vermont	14	1
Massachusetts	387	429
Rhode Island	39	30
Connecticut	104	279
New York	310	737
New Jersey	302	154
Pennsylvania	135	122
Totals	1,358	2,162

In New Hampshire, Massachusetts, and Connecticut the comparatively large numbers from private schools are due to

Exeter, St. Paul's, Andover, Groton, St. Mark's, Hotchkiss, and other large preparatory schools. In New York the comparatively small number from public schools is due to the fact that candidates from such schools are, in increasing numbers, taking the examinations set by the New York State Education Department. In connection with the Pennsylvania numbers it must be borne in mind that one hundred boys and girls from the Philadelphia high schools took the board's examinations, not as candidates for admission to college, but in competition for fifteen free scholarships offered by the city of Philadelphia.

Altho the writer has no explanation to offer for the phenomenon, it may be interesting to call attention to the variation in the average number of examinations taken by candidates. In the case of colleges not accepting certificates this number was for preliminary candidates 5.6, and for final candidates 6.7; in the case of women's colleges accepting certificates it was for preliminary candidates 6.1, and for final candidates 5.5; in the case of men's colleges accepting certificates it was for preliminary candidates 5.2, and for final candidates 5.0. In New England the number was for boys 5.4 and for girls 5.0; in the Middle States it was for boys 5.7 and for girls 6.1. In the North Atlantic States it was for public schools 6.3 and for private schools 5.4. Possibly the large number of competitive scholarships awarded on the basis of the board's examinations to students in the public high schools of the Middle States explains to some extent the facts that the average number of examinations taken is greater in the Middle States than in New England, and that it is greater for public schools than for private schools. The fact that the number is so great in the case of girls taking preliminary examinations for admission to colleges that accept certificates seems to the writer quite inexplicable.

In the following tables the numbers at the heads of the columns refer to the groups of candidates specified on page 156.

TABLE I—NUMBER OF CANDIDATES IN EACH SUBJECT

	1	2	3	4	5	6	7
English							
A. Reading	1814	481	326	155	119	149	130
B. Study	1421	114	559	46	162	39	203
	3235	595	885	201	281	188	333
History							
A. Ancient	787	159	136	89	86	51	102
B. Medieval and modern	63	11	21	4	3	3	4
C. English	402	133	92	9	5	34	27
D. American	651	75	242	14	26	24	77
	1903	378	491	116	120	112	210
Latin—New Requirements							
NR1. Grammar	616	210	62	94	56	47	36
NR2. Elementary composition	564	195	51	90	49	46	36
NR3. Second year Latin	535	228	33	83	39	24	22
NR4. Cicero and sight reading	608	204	94	84	56	39	40
NR5. Vergil and sight reading	389	27	147	27	80	6	43
NR6. Advanced composition	314	51	120	30	72	4	10
	3026	915	507	408	352	166	187
Latin—Old Requirements							
A1. Grammar	646	136	117	77	44	57	66
A2. Elementary prose composition	611	135	119	79	40	49	59
B. Caesar	520	71	36	109	50	59	50
BE. Caesar and Nepos	14	5	1	1	0	1	0
C. Cicero	557	102	95	101	56	39	48
D. Vergil: Aeneid, I-VI	205	27	97	6	17	6	15
L. Prose composition	375	23	128	23	115	1	19
M. Elementary sight trans. of prose	401	69	84	51	54	26	45
P. Advanced sight trans. of prose	88	7	44	2	15	1	8
Q. Sight translation of poetry	51	3	34	0	0	0	6
DQ. Vergil and sight trans. of poetry	178	3	15	20	70	4	45
	3646	581	770	469	461	243	361
Greek							
A1. Grammar	137	52	26	8	11	11	10
A2. Elementary prose composition	171	83	32	7	10	9	12
B. Xenophon	178	90	26	11	10	11	10
C. Homer: Iliad, I-III	47	0	31	0	0	0	10
F. Prose composition	86	31	25	2	15	1	7
G. Sight translation of prose	154	74	27	13	9	3	11
H. Sight translation of Homer	5	0	2	0	0	1	1
CH. Iliad, I-III, and sight translation	61	3	33	2	12	0	6
	839	333	202	43	67	36	67

TABLE I—PERCENTAGE OF CANDIDATES OBTAINING 60-100

	1	2	3	4	5	6	7
English							
A. Reading	51.4	58.4	56.4	63.9	65.5	40.3	30.8
B. Study	48.1	53.5	58.5	45.7	52.5	30.8	31.5
	50.0	57.4	57.7	59.7	58.0	38.3	31.3
History							
A. Ancient	49.2	62.3	58.1	43.8	50.0	51.0	31.4
B. Medieval and modern	38.1	27.3	38.1	25.0	66.7	33.3	25.0
C. English	37.1	49.6	40.1	33.3	40.0	29.4	33.3
D. American	47.3	45.3	60.3	35.7	30.8	29.2	31.2
	45.6	53.4	55.0	41.4	45.8	39.3	31.4
Latin—New Requirements							
NR1. Grammar	80.0	90.0	83.8	81.9	66.1	66.0	72.2
NR2. Elementary composition	65.6	83.6	74.5	60.0	44.9	54.3	38.9
NR3. Second year Latin	83.4	90.3	84.9	86.7	76.9	70.8	54.5
NR4. Cicero and sight reading	54.4	72.1	60.6	48.8	33.9	33.3	27.5
NR5. Vergil and sight reading	62.2	63.0	77.5	63.0	47.5	83.3	44.2
NR6. Advanced composition	52.4	64.7	66.7	50.0	29.2	25.0	30.0
	67.7	82.5	72.7	67.6	47.4	55.4	45.5
Latin—Old Requirements							
A1. Grammar	64.1	65.4	66.7	66.2	77.3	64.9	56.1
A2. Elementary prose composition	64.0	57.7	62.2	67.1	82.5	61.2	49.2
B. Caesar	42.7	38.0	50.0	46.8	42.0	40.7	20.0
BE. Caesar and Nepos	42.8	40.0	100.0	.0	.0	.0	.0
C. Cicero	45.1	53.9	41.0	45.5	37.5	41.0	43.8
D. Vergil: Aeneid, I-VI	42.9	48.1	46.4	16.7	41.2	33.3	40.0
L. Prose composition	44.3	43.4	51.5	30.4	41.7	.0	26.3
M. Element. sight trans. of prose	69.1	72.5	64.3	66.7	75.9	53.8	68.9
P. Advanced sight trans. of prose	75.0	71.4	79.5	50.0	60.0	100.0	75.0
Q. Sight translation of poetry	70.6	66.7	76.4	.0	.0	.0	66.7
DQ. Vergil and sight trans.of poetry	61.2	33.3	60.0	80.0	60.0	100.0	53.3
	55.6	57.2	57.4	55.4	55.5	52.7	47.9
Greek							
A1. Grammar	48.2	57.7	50.0	25.0	45.5	72.7	20.0
A2. Elementary prose composition	54.4	62.7	59.4	28.6	30.0	55.6	33.3
B. Xenophon	61.8	75.6	76.9	18.2	.0	63.6	50.0
C. Homer: Iliad, I-III	70.1	.0	77.4	.0	.0	.0	40.0
F. Prose composition	52.3	71.0	56.0	.0	40.0	.0	14.3
G. Sight translation of prose	68.2	77.0	66.7	46.2	44.4	33.3	54.5
H. Sight translation of Homer	100.0	.0	100.0	.0	.0	100.0	100.0
CH. Iliad, I-III,and sight translation	65.6	100.0	81.8	50.0	41.7	.0	66.7
	59.2	69.6	67.8	30.2	34.3	61.1	40.3

TABLE I—NUMBER OF CANDIDATES IN EACH SUBJECT

	1	2	3	4	5	6	7
French							
A. Elementary	1317	324	215	141	87	106	176
B. Intermediate	678	96	160	58	73	34	136
BC. Intermediate and advanced	116	14	25	10	21	1	15
	2111	434	400	209	181	141	327
German							
A. Elementary	1236	274	254	96	84	96	152
B. Intermediate	572	57	168	23	68	21	118
BC. Intermediate and advanced	69	9	21	1	9	3	7
	1877	340	443	120	161	120	277
Spanish	17	3	5	0	1	2	3
Mathematics							
A. Elementary algebra complete	1655	464	294	104	168	112	137
A1. Algebra to quadratics	305	107	17	26	11	36	12
A2. Quadratics and beyond	123	12	60	0	13	7	13
B. Advanced algebra	218	15	80	4	0	16	76
C. Plane geometry	1586	398	217	127	150	131	105
D. Solid geometry	265	19	129	0	3	16	66
CD. Plane and solid geometry	255	25	122	1	1	8	26
E. Trigonometry	27	4	19	0	0	0	0
F. Plane trigonometry only	410	30	216	4	3	18	74
	4844	1074	1154	266	349	344	509
Physics	705	128	254	22	21	48	58
Chemistry	506	71	173	17	12	31	63
Botany	29	4	9	1	2	1	1
Geography	39	6	16	0	1	0	1
Zoology	16	1	4	0	0	0	0
Drawing	121	19	80	0	0	3	5
Music							
A. Appreciation	4	1	3	0	0	0	0
B. Harmony	9	3	2	0	1	0	0
C. Counterpoint	2	1	0	0	0	0	0
D. Pianoforte, *E.* Voice, *F.* Violin	3	0	1	0	2	0	0
	18	5	6	0	3	0	0
Totals	22932	4887	5399	1872	2012	1433	2409

TABLE I—PERCENTAGE OF CANDIDATES OBTAINING 60-100

	1	2	3	4	5	6	7
French							
A. Elementary	61.0	69.1	60.0	70.2	59.8	55.7	46.0
B. Intermediate	48.1	58.3	56.9	55.2	43.8	38.2	34.6
BC. Intermediate and advanced	43.9	71.4	40.0	50.0	23.8	100.0	33.3
	56.0	66.8	57.5	65.1	49.2	51.1	40.7
German							
A. Elementary	56.7	69.3	59.8	57.3	58.3	54.2	50.0
B. Intermediate	34.9	47.4	45.9	34.8	29.4	42.9	29.7
BC. Intermediate and advanced	24.6	44.0	23.8	100.0	33.3	.0	42.9
	48.9	63.8	52.8	53.3	44.7	50.8	41.2
Spanish	58.8	66.7	80.0	.0	.0	50.0	.0
Mathematics							
A. Elementary algebra complete	46.5	60.9	48.3	41.3	28.0	50.0	29.2
A1. Algebra to quadratics	40.6	45.8	29.4	50.0	18.2	38.9	16.7
A2. Quadratics and beyond	35.8	58.3	43.3	.0	23.1	42.6	30.8
B. Advanced algebra	67.4	66.7	72.5	.0	.0	68.8	71.1
C. Plane geometry	33.9	52.7	32.7	26.0	20.6	35.9	23.8
D. Solid geometry	58.8	73.6	65.9	.0	66.7	43.8	45.5
CD. Plane and solid geometry	49.8	48.0	61 4	.0	.0	50.0	46.2
E. Trigonometry	40.7	.0	47.4	.0	.0	.0	.0
F. Plane trigonometry only	50.5	63.3	51.4	.0	33.3	50.0	51.4
	43.8	56.4	50.4	33.5	24.6	43.9	40.3
Physics	53.8	60.9	66.1	36.4	19.0	45.8	42.6
Chemistry	61.8	59.1	65.9	47.1	41.7	64.5	66.7
Botany	44.8	50.0	44.4	100.0	.0	.0	.0
Geography	43.6	33.3	56.2	.0	100.0	.0	100.0
Zoölogy	50.0	.0	50.0	.0	.0	.0	.0
Drawing	47.1	47.4	50.0	.0	.0	100.0	20.0
Music							
A. Appreciation	50.0	100.0	33.3	.0	.0	.0	.0
B. Harmony	44.4	66.7	50.0	.0	.0	.0	.0
C. Counterpoint	.0	.0	.0	.0	.0	.0	.0
D. Pianoforte, *E.* Voice, *F.* Violin	33.3	.0	100.0	.0	.0	.0	.0
	38.9	60.0	50.0	.0	.0	.0	.0
Totals	52.7	63.7	57.8	54.6	45.8	47.9	40.7

TABLE II—NUMBER OF CANDIDATES IN EACH SUBJECT

	1	8	9	10	11	12	13
English							
A. Reading	1814	562	151	608	220	702	922
B. Study	1421	425	111	452	211	552	682
	3235	987	262	1060	431	1254	1604
History							
A. Ancient	787	266	91	179	90	262	411
B. Medieval and modern	63	16	1	28	9	31	19
C. English	402	115	8	161	54	158	193
D. American	651	191	18	281	70	285	288
	1903	588	118	649	223	736	911
Latin—New Requirements							
NR1. Grammar	616	252	88	133	63	224	346
NR2. Elementary composition	564	246	82	127	58	215	315
NR3. Second year Latin	535	266	70	104	45	171	326
NR4. Cicero and sight reading	608	228	76	114	101	232	332
NR5. Vergil and sight reading	389	123	74	66	86	160	201
NR6. Advanced composition	314	86	53	42	83	115	172
	3026	1201	443	586	436	1117	1692
Latin—Old Requirements							
A1. Grammar	646	148	53	207	109	240	310
A2. Elementary prose composition	611	133	55	209	99	223	296
B. Caesar	520	103	63	159	71	192	243
BE. Caesar and Nepos	14	4	0	4	0	5	5
C. Cicero	557	84	60	186	116	231	250
D. Vergil: Aeneid, I-VI	205	23	8	77	59	64	108
L. Prose composition	375	45	71	73	115	153	165
M. Elementary sight trans. of prose	401	90	61	99	83	172	176
P. Advanced sight trans. of prose	88	38	16	4	15	39	41
Q. Sight translation of poetry	51	24	1	11	8	8	38
DQ. Vergil and sight trans. of poetry	178	41	48	22	31	103	59
	3646	733	436	1051	706	1430	1691
Greek							
A1. Grammar	137	58	12	38	13	51	78
A2. Elementary prose composition	171	90	14	34	14	51	107
B. Xenophon	178	86	14	37	13	48	117
C. Homer Iliad, I-III	47	16	1	14	10	18	27
F. Prose composition	86	31	10	24	13	31	48
G. Sight translation of prose	154	80	16	29	14	43	101
H. Sight translation of Homer	5	2	0	0	1	2	1
CH. Iliad, I-III, and sight translation	61	37	9	5	2	23	35
	839	400	76	181	80	267	514

TABLE II—PERCENTAGE OF CANDIDATES OBTAINING 60-100

	1	8	9	10	11	12	13
English							
A. Reading	51.4	51.1	58.3	43.6	72.3	51.7	51.8
B. Study	48.1	46.6	45.0	41.8	68.7	44.9	52.8
	50.0	49.1	52.7	42.8	70.5	48.7	52.2
History							
A. Ancient	49.2	55.6	53.8	46.9	56.7	40.5	56.7
B. Medieval and modern	38.1	31.3	100.0	17.9	66.7	54.8	26.3
C. English	37.1	40.9	12.5	32.3	50.0	36.7	38.9
D. American	47.3	53.4	27.8	47.3	54.3	53.7	43.8
	45.6	51.4	47.5	42.2	54.7	45.4	48.2
Latin—New Requirements							
NR1. Grammar	80.0	84.5	87.5	75.9	81.0	72.8	87.3
NR2. Elementary composition	65.6	72.0	68.3	60.6	58.6	47.9	78.1
NR3. Second year Latin	83.4	86.8	92.9	76.0	80.0	74.3	89.6
NR4. Cicero and sight reading	54.4	57.4	52.6	49.1	58.4	41.8	65.4
NR5. Vergil and sight reading	62.2	73.2	64.9	57.6	65.1	58.1	67.2
NR6. Advanced composition	52.4	62.8	39.6	52.4	57.8	42.6	60.5
	67.7	74.6	69.3	63.7	65.1	56.6	76.6
Latin—Old Requirements							
A1. Grammar	64.1	68.9	79.2	53.1	66.1	68.3	60.3
A2. Elementary prose composition	64.0	65.4	85.5	51.2	69.7	66.8	58.4
B. Caesar	42.7	31.1	46.0	42.1	40.8	43.8	40.3
BE. Caesar and Nepos	42.8	50.0	.0	25.0	.0	40.0	40.0
C. Cicero	45.1	45.2	43.3	44.6	45.7	47.2	41.2
D. Vergil: Aeneid, I-VI	42.9	47.8	12.5	42.9	54.2	48.4	44.4
L. Prose composition	44.3	48.9	42.3	49.3	46.1	36.6	49.1
M. Elementary sight trans. of prose	69.1	68.9	77.0	67.7	66.3	72.7	65.9
P. Advanced sight trans. of prose	75.0	81.6	68.9	100.0	73.3	79.5	78.0
Q. Sight translation of poetry	70.6	83.3	100.0	54.6	75.0	62.5	76.3
DQ. Vergil and sight trans. of poetry	61.2	56.1	75.0	63.7	64.5	61.2	62.7
	55.6	58.7	61.9	50.3	56.7	57.3	53.6
Greek							
A1. Grammar	48.2	50.0	58.3	44.7	69.2	45.1	53.8
A2. Elementary prose composition	54.4	57.8	35.7	52.9	78.6	45.1	57.9
B. Xenophon	61.8	70.9	14.3	56.8	76.9	39.6	71.8
C. Homer: Iliad, I-III	70.1	43.8	.0	71.4	90.0	55.6	74.1
F. Prose composition	52.3	64.5	40.0	41.7	69.2	48.4	58.3
G. Sight translation of prose	68.2	75.0	56.3	58.6	85.7	53.4	72.3
H. Sight translation of Homer	100.0	100.0	.0	.0	100.0	100.0	100.0
CH. Iliad, I-III, and sight translation	65.6	78.4	44.4	80.0	50.0	56.5	77.1
	59.2	65.0	40.8	53.6	77.5	47.9	65.6

TABLE II—NUMBER OF CANDIDATES IN EACH SUBJECT

	1	8	9	10	11	12	13
French							
A. Elementary	1317	488	171	351	165	445	746
B. Intermediate	678	216	99	161	99	224	387
BC. Intermediate and advanced	116	16	16	11	31	35	49
	2111	720	286	523	295	704	1182
German							
A. Elementary	1236	344	118	438	149	499	585
B. Intermediate	572	128	55	222	87	233	271
BC. Intermediate and advanced	69	9	7	12	18	26	25
	1877	481	180	672	254	758	881
Spanish	17	5	0	10	0	1	15
Mathematics							
A. Elementary algebra complete	1655	578	202	496	199	655	839
A1. Algebra to quadratics	305	57	17	153	27	72	195
A2. Quadratics and beyond	123	26	6	65	9	24	82
B. Advanced algebra	218	102	3	85	7	52	147
C. Plane geometry	1586	463	186	441	206	561	752
D. Solid geometry	265	124	2	107	7	64	176
CD. Plane and solid geometry	255	65	0	121	6	123	83
E. Trigonometry	27	13	0	7	0	4	21
F. Plane trigonometry only	410	130	1	203	16	123	242
	4844	1558	417	1678	477	1678	2537
Physics	705	244	24	289	56	282	343
Chemistry	506	126	27	266	18	221	237
Botany	29	3	0	3	12	6	12
Geography	39	1	2	23	7	16	17
Zoology	16	2	0	5	5	7	4
Drawing	121	4	1	95	7	58	55
Music							
A. Appreciation	4	0	0	2	0	2	1
B. Harmony	9	1	0	5	2	2	4
C. Counterpoint	2	0	0	0	2	0	1
D. Pianoforte, *E.* Voice, *F.* Violin	3	0	2	1	0	2	1
	18	1	2	8	4	6	7
Totals	22932	7054	2274	7099	3011	8541	11702

TABLE II—PERCENTAGE OF CANDIDATES OBTAINING 60-100

	1	8	9	10	11	12	13
French							
A. Elementary	61.0	64.5	68.4	50.7	69.7	59.8	63.3
B. Intermediate	48.1	51.4	51.5	42.3	55.6	45.5	51.4
BC. Intermediate and advanced	43.9	18.8	43.8	36.4	45.2	25.7	49.0
	56.0	59.6	61.2	47.8	62.4	53.6	58.8
German							
A. Elementary	56.7	62.2	66.9	52.7	62.4	55.7	58.3
B. Intermediate	34.9	51.6	36.4	30.6	33.3	29.6	40.6
BC. Intermediate and advanced	24.6	.0	14.3	25.0	27.8	19.2	28.0
	48.9	58.2	55.6	44.9	50.0	46.4	52.0
Spanish	58.8	60.0	.0	70.0	.0	.0	66.7
Mathematics							
A. Elementary algebra complete	46.5	48.4	37.6	53.8	42.7	44.9	50.7
A1. Algebra to quadratics	40.6	50.9	17.6	42.5	44.4	40.3	44.1
A2. Quadratics and beyond	35.8	38.5	50.0	36.9	22.2	25.0	40.2
B. Advanced algebra	67.4	68.6	.0	70.6	57.1	59.6	70.7
C. Plane geometry	33.9	44.3	25.3	36.5	31.1	31.9	39.7
D. Solid geometry	58.8	58.9	50.0	57.0	71.4	53.1	60.2
CD. Plane and solid geometry	49.8	44.6	.0	56.2	16.7	54.5	50.6
E. Trigonometry	40.7	38.5	.0	71.4	.0	50.0	42.9
F. Plane trigonometry only	50.5	52.3	100.0	49.3	25.0	48.8	51.2
	43.8	49.4	31.4	48.3	37.1	41.8	48.4
Physics	53.8	53.3	33.3	59.9	35.7	56 7	53.1
Chemistry	61.8	50.0	40.7	68.4	44.4	60.2	61.2
Botany	44.8	33.3	.0	.0	66.7	33.3	58.3
Geography	43.6	.0	50.0	30.4	85.7	25.0	52.9
Zoölogy	50.0	100.0	.0	40.0	60.0	57.1	75.0
Drawing	47.1	50.0	100.0	51.6	28.6	58.6	34.5
Music							
A. Appreciation	50.0	.0	.0	50.0	.0	50.0	100.0
B. Harmony	44.4	100.0	.0	40.0	.0	50.0	50.0
C. Counterpoint	.0	.0	.0	.0	.0	.0	.0
D. Pianoforte, *E.* Voice, *F.* Violin	33.3	.0	.0	100.0	.0	.0	100.0
	38.9	100.0	.0	50.0	.0	33.3	57.1
Totals	52.7	57.5	54.0	49.5	56.7	50.3	56.2

COLUMBIA UNIVERSITY

THOMAS S. FISKE

V

SECRET SOCIETIES IN HIGH SCHOOLS[1]

The subject of high school secret societies was selected for special investigation to inform myself more fully relative to the attitude of educators and school authorities in Colorado and the country at large regarding them. The local agitation of this question during the current year necessitated a firm stand against these organizations by the school board. The primary object of this investigation has been to substantiate the soundness of the board's judgment in discriminating against secret societies in our high school.

In preparation of this thesis, acknowledgments are due to school officials, superintendents, and principals for their courtesy in promptly answering letters requesting information on this subject; and especially to Dr. J. V. Breitwieser, of Colorado College; Dr. A. S. Jackman, Chicago University; Principal John Calvin Hanna, of Oak Park, Ill.; and Miss Martha Dorsey, of Colorado Springs high school, for her helpful criticism of the thesis in manuscript.

SECRET SOCIETIES IN HIGH SCHOOLS

One of the most perplexing problems in high school administration today is that of student organizations. The question has been solved in many schools by absolute elimination. Such a policy, of course, keeps high school life simple, but it deprives the student of an asset to which he is entitled, viz., the development of the social instinct and power of initiative, so helpful in the real issues of his later life. We must accept as axiomatic that the high school should be organized along lines leading to the proper development of the

[1] Submitted as a partial requirement for the degree of Master of Arts, Colorado College, 1911.

student and of the entire school. Each organization should contribute to the welfare of the whole, and any which does not, and which can not be uplifting to the spirit of the school, should have no place in high school life.

This brings us to the kind of organizations which have been all but unanimously condemned by the high school principals and teachers in practically every high school in the nation, viz., high school secret societies, known as fraternities and sororities. Out of this phase of student organization has developed a problem claiming the attention of school authorities which is wellnigh universal, and which threatens to endanger the future of our public schools by adversely affecting the spirit of democracy, which is, and should be, the predominating principle. The controversy has assumed so much importance that it may be considered the leading question, demanding immediate attention and adjustment. The nationwide hostility of educators toward these organizations is evidence that they threaten the basic principle of high schools. Adverse criticism is practically a unit, but in spite of this it is almost impossible to present the cause of the school against that of the fraternity with any degree of success.

The early history of high school secret societies is obscure. The first of which any record can be found is the Alpha Phi, organized in 1876 as a literary society. Charters existed in various schools in New York, New Jersey, and Delaware. The growth of the societies, however, was slow until the nineties, when they increased so rapidly that an artful manipulation of the Greek alphabet was required to make necessary distinctions. Their presence has not been seriously considered, however, until the last decade. The growth of these organizations comes within the experience of principals and teachers of the present time. They, therefore, can form a correct estimate of the merits claimed by secret society members to a place in high school life, as the entire history is in plain view.[2]

Today, practically every high school in the larger cities has had experience with secret societies. The number in a school

[2] *Education*, vol. xix, 517-527.

varies, but there are generally two or more, which is natural, because one demands another to offset its influence. In the Girls' High School of San Francisco there are seven sororities; Central High School, St. Joseph, Mo., four fraternities and two sororities; in Central High School, Toledo, Ohio, there were, previous to legislation prohibiting them, nine fraternities and five sororities. The above will suffice to illustrate the number found in the larger high schools. The membership of a chapter varies from twenty to thirty, but their influence is powerful when strengthened by a chain of chapters spread here and there.

This discussion will not enter into the college fraternity question except to solicit the aid of these fraternities in the abolition of high school secret societies. There is no desire to compare the two, because the latter presents an entirely different problem. There has never been set forth a good reason for the existence of the high school fraternity. The college students are older and capable of exercising more judgment. A real need is supplied to young men and women away from home by offering a substitute for home life. High school students are at home, and are too young for club life. Whatever may be said in favor of college fraternities, relative to establishing desirable social standards and for the benefit of students, is not applicable to high school pupils because of their immaturity.

The reasons generally given for their existence are:

(a) *They develop the social phase of student life.*

Granting the truth of this argument, it does not mean that the fraternity is the best avenue for such development. It is the general belief among educators that this element can be more effectually supplied thru non-secret societies. Pupils are allowed to have diversified social gatherings in the buildings, open to the entire school. They have dances, spreads, socials, receptions, and all sorts of social functions to which teachers are free to go and mingle with the students. The teacher becomes a better instructor, and the students get what they desire and need in a secure and sheltered atmosphere. Such social organizations tend to unify the entire school,

whereas the secret society tends to a fragmentary, disorganizing influence.

(b) *They tend to gratify the organizing instinct.*

All thoughtful people realize that the tendency of the last quarter of a century has been toward organization. This motive is natural and legitimate, but again it may be asked, is the secret society the only and best means for such development? A recent report of the supervisors of New York City high schools was to the effect that this tendency could be better supplied by non-secret societies. There are literary societies, musical, science, and dramatic clubs, class organizations, athletic associations, etc. These organizations, if properly directed and managed, are adequate to satisfy the organizing instinct.

(c) *They gratify the exclusive and secret tendency.*

Such an argument is hardly worth consideration. While the motive is natural, it is illegitimate, selfish, and downward in its effect. It is in direct and unqualified opposition to democracy and altruism, out of which have developed the lasting elements of our civilization. It has been well said that a high school dominated by exclusive sets means that a man may be taxed for the ostracism of his own child. Where fraternities exist, it is not uncommon to hear the remark that to get on this or that team one must belong to a "frat." If a school is democratic, there is no place for social differentiation. Therefore, if our schools are to be free for the people, and by the people, this abnormal growth must be eliminated. The free American public high school can not be a caste breeder nor caste harborer if it is to exist. Exclusiveness has no place in it.[8]

(d) *Imitation of college life.*

The origin and rapid growth of high school fraternity spirit has doubtless been influenced by the same spirit emanating from institutions of higher learning. Many teachers of our high schools have come from colleges and universities where fraternities and sororities flourish, and in many cases high school students have caught the spirit of secret societies from

[8] G. B. Morrison, *Proceedings of North Central Association*, 1905.

this source. The forming of such organizations in many cases can be traced to teachers, who, believing fraternity life would prove as helpful to secondary students as their college fraternity had been to them, aided in forming high school secret societies. These same teachers are today the strongest opponents of the system. Again, boys going to college from our high schools get the fraternity spirit, return, and aid in the organization.

ARGUMENTS AGAINST

(a) The gravest charge against secret societies in high schools is that they are undemocratic. This charge applies more particularly to sororities, but is also true of fraternities. The school is a social organization and demands that every member thereof shall contribute his best to uplift the whole. That this may be accomplished the school naturally divides itself into groups, depending on number of years in high school, age, etc. The division into groups, however, does not mean that the same demand is not made of the group that was of the individual, contribution to the general welfare. Does the secret society so influence? If so, why is it exclusive and why are so many deprived of the good effect claimed for it? Fraternity members never answer this question. Here is an organization which claims to be social and at the same time prevents many of its members from exerting their best influence for the school. This institution, with lines so well defined that it is narrow, is beneficial for only a small coterie. Any other assumption is positively ridiculous. If such were not the case, and the secret society really desired to promote the general welfare of the school, and not the individual members, the membership would not be so limited. The best students would not be secured for membership and isolated. The predominating principle is aristocratic, exclusive, and therefore comes into conflict with the legitimate organization of the school, which is essentially democratic.

A secret society is a manifestation of the group influence misdirected. Anything which divides the school into exclusive groups works against its liberalizing influence. Many

members possess elements of leadership, social and moral, and the other qualities which aid in the management of the school. The secret society narrows this influence to the clique instead of giving individuals the pleasure of centralizing their activity in the purpose of the school.[4]

The public high school, being democratic, should provide for the proper development of democratic ideals, not thru lessons in civics alone, but thru social organization as well. This should be the predominating principle in every activity. There is only one way for the student to become imbued with the principles of democracy and that is by active participation in them. Every live school must have the best there is in every member every day. Such a condition can not prevail where exclusive cliques are found.

(b) The student gets false standards of life as a result of the undemocratic element in secret societies; and not only the student who is a member but the one outside. The effect on the member has been and will be further discust. The effect on the non-member is not always for the best. He entered the high school with the idea that all were free and equal and that merit was the guide toward recognition and distinction in school honors; but he soon learns that such is not the case. He must affiliate with this or that group if he secures any recognition. It matters not how efficient he may be in athletics, debating, or any other school activity. Out of these conditions have developed three distinctive types of students, which may be described as follows:

(1) The student who is anxious to become a member and develop into what we may call a "fraternity chaser." This type apes the fraternity members in dress and manners, and even goes further in the hope of attracting favorable attention.

(2) The student who believes the world is wrong, that he has no show, and that unfairness permeates the school. This type loses interest, forms bad acquaintances outside, who affect not only him but the school as well.

(3) The student who plods along, ignoring the snubs of secret society members, and in spite of them finds an ideal

[4] A. S. Jackman, *Elementary school teacher*, vol. v, p. 579.

relation to his school. This student develops into the type toward which the school will ultimately point as the best product—a type that would be attained by many were they not blighted by the secret society influence.

Each type will seek reasons for not being invited to join, and what answer will they get? It will take some such form as the following: "You can not always expect to belong. You will always be left out of something. You must stand alone."[5]

Imagine an institution founded on the principles of democracy permitting such conditions. Does such a condition apply to after life? If it does, it is the tendency against which the public school trains. A school permitting such conditions bows to a self-appointed aristocracy. The student enters the school with certain rights. The school advertises open doors and equal privileges, but where secret societies exist a barrier is met. This makes the school a social organization in theory, sanctioning an internal caste-system which deliberately hinders the student's progress. He naturally feels that the school has not lived up to its obligations. Does it not seem reasonable that he could go into court and compel the school to lift the boycott? If the school is the cradle of democracy it should remove all exclusive conditions. Certainly the fraternity trains the student in all old social prejudices which the race has long tried to cast off, instead of training him in the broad principles of democracy.

(c) The effect on school spirit is bad. School spirit and enthusiasm depend on loyalty to the school and all its activities, not loyalty of individuals to individuals, but loyalty of individuals to ideals. From this the school gets its impetus, and the best work can not be done without it. Those who have had experience say the secret societies produce a lessening of school spirit. When an interest of school is placed against a fraternity interest, the fraternity holds first place in the fraternity student's affection. When such a condition exists harmony with central authority is impossible. The student's vision is dimmed by another kind

[5] *Ibid.*

of ideal in the background, which he is bound by an oath to maintain, and which is not to be sacrificed for any purpose of the school which tends to the opposite. The fraternity members have taken an oath to stand together. If one member is disciplined, they all feel disciplined and sympathize with the offender. Such a condition is ruinous to the school, and if the ruin is not complete, it is prevented by powerful co-operation of the legitimate influences of the school.

Where secret societies exist there is scarcely a problem for solution that does not in some form or other involve them. What attitude will they assume toward this or that enterprise? If a certain action is taken, how will it affect this or that secret society? What effect will it have on non-fraternity students? And thus the problems multiply. The principal and teachers must be vigilant. The evil and artificial conditions require tact and wisdom to meet the problems where these secret societies exist, even under the most favorable conditions.

Many high school principals report efforts on the part of fraternities to overthrow authority. That they are factional and stir up strife and contention, all who have had experience will say in unqualified terms. The statements of school men will be given in another part of this discussion, but let us take the word of one outside the profession. Honorable Thomas F. Moore, of Greencastle, Ind., in discussing the law recently past in that state, says of the spirit of insubordination and lawlessness inculcated by the fraternities: "What a spectacle we recently beheld in the state of Indiana of children who are of the ages when their immaturity required them to be governed and subject to the control of teachers and parents, gravely debating the question of whether they will obey the law recently past by the legislature abolishing such secret societies. If there were nothing else to show the vicious tendencies of such organizations this alone would suffice." Where secret societies and fraternities have a normal and complete growth there is no question of their attitude toward central authority. They are defiant if opposed and know no law except that of their fraternity.

(d) The effect on scholarship has been an objection given by many in a position to know. The members dissipate their time and energy and consequently neglect their school work, often to the point of failure. There are few natural students —they do not study because they like to. To get the proper amount of time spent on lessons takes the fullest cooperation and sympathy of both parent and teacher. The school must be permeated with a spirit of freedom if it is to be wholesome and upbuilding. There must be no constraint, but friendliness existing between the school and pupil. This is impossible if the student sets himself against the authority of the school. This he does when he joins a secret society. He feels that this thing is condemned by the school and is believed to be contrary to its best interest; by joining he says that he has no regard for the wishes of those in authority and cares nothing for the welfare of the school. His law is his own wish in the matter. The general good is too abstract for him.

No student can do his best work with this background of opposition. It absorbs his best thought—he thinks he is martyr to the cause of freedom and neglects his Latin, mathematics, or some other subjects, and at the end of a term finds he has failed. His mind has not been in a natural and easy condition and can no more do satisfactory mental work than he could do fine manual work with the wrist broken. That this antagonism impairs the school work is evident. No one believes that the fraternity student is mentally inferior; on the other hand, he may have been above the average on entering school, but this natural ability grows dull from a lack of effort, and from the fact that the students are out of harmony with the school.

Superintendent Cooley, when superintendent of the Chicago schools, issued a report, coming from the principals, on the fraternity situation. One of the charges was that there was failure to do school work and that the scholarly attainments of a majority of students belonging to secret societies were far below the average. In one high school, a record was kept of all secret society members. It showed that out of 87 sorority girls, 30 were below the passing mark, and the average stand-

ing was 75.6; out of 34 fraternity boys, 19 were below, and their average standing was 72. The total number of boys and girls was 121, the average mark was 74.9, one-tenth below the grade required for passing. Only one went above 90. The number falling below 75 was 49.

Another high school principal gives the following record, not including boys who have been pledged and those who have not been members long enough to be affected. There are 15 old members in the fraternity whose records are given. Two did work up to a fairly good standard. Out of the year's work one had four A's and four B's, the other three A's, three B's, and two C's. Not another one made a grade of A, tho three others got thru without failure. The record of the other ten follows:

No. 1—Failed in one subject. No. 2—Failed in one subject and made the lowest possible grade in three others. No. 3—Failed in two subjects. No. 4—Failed in everything the first half and all but one the last. No. 5—Failed in three the first half and everything the last. No. 6—Third year in school, doing second year work over, and failed again in two subjects. No. 7—Fourth year in school, doing second and third year work; was failing in everything and stopped. No. 8—Failed in everything the first half and two subjects the last. No. 9—Third year in school, doing second year work over; failing, stopped. No. 10—Third year in school, doing second year over, failing in everything, dropt out before final examinations. There are no other records as to the last seven to be found in school. The fraternity has a monopoly on this grade of product. "At this stage the parents are not blind to the cause, but helpless," says the principal. Such conditions as the above can not be charged to the native ability of students, but to conditions incident to fraternity influence, where the fraternity has a natural and uninterrupted growth. In the local high school a better condition prevails, but the test here is not typical owing to the hostility manifested toward them from their inception. The record for the last semester of the only national fraternity, Phi Lambda Epsilon, which has been in our high school, follows:

No. 1—Failed in one subject, highest grade 78, average 71. Will take 4½ years to complete the course. Freshman year good.

No. 2—Conditioned in one subject, highest grade 74, average 71. Freshman and sophomore years good. Dropt out.

No. 3—Conditioned in one subject, highest grade 90, average 74. Freshman and sophomore good.

No. 4—Failed in three, past two, highest grade 73, average 64.

No. 5—Conditioned in one, highest grade 85, average 80.

No. 6—Failed in one, conditioned in two, highest grade 72, average 68.

No. 7—Failed in three, conditioned in one, dropt out.

No. 8—Failed in three, past two, highest grade 74, average 65, dropt out.

The boys did good work until they joined the fraternity, but since that time their work has fallen off. The secret society may not be the cause. I give this fraternity because it is the oldest and has had a better chance to develop than the others.

R. H. Jordon, principal of Central high school, St. Joseph, Mo., says there are four fraternities and two sororities there; that most of the secret society pupils fail, and one fraternity has never graduated a boy who joined as a freshman. The same condition exists in Springfield, Mo., Sedalia, Mo., and many others where fraternities flourish.

(e) Another charge is the bringing of politics into the legitimate organizations of the school. The high school becomes a place for the training of bosses and organization of rings that by a carefully wrought out system control the election to offices. Superintendent Cooley reported that in one high school having 1,330 pupils and 25 elective positions, filled by the students from their ranks, the 130 fraternity members held 20 of these positions against five held by the other 1,200. He says, "The representative government of the school was as firmly in the clutches of the 'frat ring' as the municipal policies of New York were controlled by Tammany."

By their overt acts, and air of superiority, the ire of other

students is aroused and the school is kept in a turmoil. Even in high schools without secret societies, it is difficult to have all selections to offices and places on the teams free and open. Where these societies exist, it is the unanimous verdict that they monopolize all the desirable school offices, regardless of merit.

The above has been the experience in the local high school. At the opening of school last September a fight was on between two members of different fraternities for the management of the school paper. Each accused the other of unfairness and trickery. Little attention was given to the charges, but a new election ordered, barring these two. The election of a new manager followed, and time disclosed the fact that he, too, was a member of a third fraternity. The non-fraternity element in the school will bear out the statement that to have much of a chance for a team or office fraternity membership was the chief requisite. There were thirty-one secret society members of the school when the ruling of the board of education was enforced last January. Out of the thirty-one, all but three were representing the school on some team, in class plays, or in offices, including football captain, presidents of the four classes, and editors of the *Lever*. They had a complete monopoly on all school honors,—if a "barb" was honored he was lucky and the matter was an accident or mistake. To the writer this is one of the deplorable conditions incident to fraternity influence in the Colorado Springs high school.

In many instances the fraternities combine forces to overcome the "barbs." In an issue of one of the quarterlies of a national fraternity a striking example is given which runs something like this: Two officers were to be elected to manage affairs of the football team. The "fraternity men" discovered that they must combine or both would lose, so an agreement was entered into whereby each fraternity was to get an office. The fraternities won by one vote. This is the treatment the opposition (barbs) usually gets. The fraternities picked the football team by scheming during the season. That they have a carefully wrought out system of politics is evident.

(f) The high school student is too young for fraternity life. The adolescent period should not be dominated by artificial and organized aid to reticence or secrecy.[6] There is no period in the life of the boy or girl when secrecy is to be so much avoided. The parent, child, and teacher should be confidants. The pupils at this age are too susceptible to the influences growing out of club life. This is especially true where the chapter house has been reached. The judgment of those who have had experience with the fully developed high school fraternity condemn chapter houses on account of immorality and vice. The searching investigation made by the Chicago board in 1908 revealed very bad conditions. The "frat" house was described as "an instrument of the devil," "a plague spot," and the secret societies branded as disseminating a score or more of degenerating influences, mentally, morally, and physically. Boys and girls will be young but once. The social struggle with its bitterness may come soon enough; therefore let us have them during these four years youths, and not premature men and women.

To reinforce the position taken by the board of education of District No. 11, a circular letter was sent to the various high schools in Colorado and the country at large, containing, among other things, this question: Do you believe in high school fraternities? Why? To date, forty-five have answered, forty-four exprest themselves strongly opposed, and one was indifferent, said they ignored their existence entirely.

High school, Ft. Collins, Colo. "I am bitterly opposed to all secret organizations and can not see how I could feel like trying to conduct a school where they were in virtual control of the social and other life of the school. I would suspend a pupil who I knew belonged to one. Our board rules covering them are very strict."

High school, Loveland, Colo. "I am very much opposed to them, because of their influence socially, and I think they tend to undermine the school. We are prepared in anticipation by an act of the board."

High school, Leadville, Colo. "We do not have secret societies and take all precaution to prevent their formation. We did have them but found they were too much of a drain upon the energy of our students. Late and irregular hours dissipated the vitality, and consequently a lower

[6] Report of New York City Superintendents.

standard of work was given us by these students. The board past a stringent regulation against them, giving the principal power to expel."

High school, Longmont, Colo. "We have no fraternities in our high school. The cause of the school is first considered by our students. We have the most loyal spirit in our school I have ever known, and we have kept secret societies out by appealing to school loyalty."

Central high school, Pueblo, Colo. "We formerly had fraternities and sororities and they gave us no serious trouble. We knew they had caused trouble in other schools, and as they seemed to us undemocratic, we appealed to the local chapters to return their charters. This they did not do. The board past a resolution abolishing them in 1907-08. They have finally been eliminated."

High school, Boulder, Colo. "They produce an un-American spirit of class distinction in the student body; they promote snobbishness and social injustice among equals. They break up unity and spirit of action that is so necessary. They introduce politics into school affairs. They are unnecessary. I wish you much success eliminating them and hope your board and city will give support."

High school, Oak Park, Ill. "I believe that they are a positive injury and should be glad to see them done away with entirely. They are exclusive and snobbish; they are undemocratic; they cause heart-burnings. The good that is claimed for them is far outweighed by their faults and dangers."

High school, Camden, N. J. "The board of education, the superintendent of schools, and I are very thoroly opposed to them. An attempt was made to organize a fraternity a few years ago, but it was promptly disorganized and strict regulations past against them. We do not think they have any place in the high school. We are glad to profit by the experience of others."

Lincoln, Neb. "We have always been opposed to high school fraternities. The legislature past a law prohibiting high school fraternities. In carrying out the provisions of the law, a list of fraternity members was secured, and those who would not surrender were promptly expelled or were not re-admitted."

High school, Nashville, Tenn. "The policy of our board of education is to maintain an attitude of indifference and ignoring the existence of such activities as may have been exercised in the matter."

Los Angeles, Cal. "We do not believe in them because they are undemocratic, snobbish, hold wrong notions of life, and are expensive."

Wichita, Kan. "We do not recognize high school fraternities in any way, but still have some left since the law past by the legislature abolishing them."

Cincinnati, Ohio. "I am happy to say that the state of Ohio past a law prohibiting them, since which time we have been free from them."

Superintendent of schools, Cleveland, Ohio. "We regard them as detrimental to the school and undemocratic. We have succeeded in preventing their getting a foothold."

Superintendent of schools, Madison, Wis. "All secret organizations of any kind have been excluded from our schools for the past four years. We absolutely forbid any person in the high school joining such an organization or having any affiliation with high school secret societies."

Superintendent of public instruction, Cal. "They are an unmitigated evil, because they foster an un-American spirit of snobbery and impair school discipline. They are bad in every way, bad for the students in, and for those they keep out. I have never heard a good reason for their existence."

High school, Davenport, Iowa. "My attitude toward high school fraternities is uncompromisingly hostile. I believe them to be demoralizing to members, to school interest and school spirit. They foster loyalty to the fraternity rather than to the school. I believe they often encourage vicious habits. I have always regarded them as an unmixt evil."

High school, Rockford, Ill. "We in no way recognize them, because they are breeders of disloyalty to school government and school interests; they are undemocratic and tend to snobbery."

High school, Lansing, Mich. "I am opposed to high school fraternities because they are undemocratic; they tend to snobbishness; they introduce politics into school affairs; girls and boys often leave school because they are not asked to join, they narrow friendships."

High school, Marshalltown, Iowa. "I emphatically do not believe in high school secret societies for the following reasons: They are undemocratic, and give a student an undue idea of his importance; they impose an obligation of secrecy at a time in life when frankness should exist; they are a silly aping of college fraternities, in an environment entirely different."

Mr. Twitmier, of the Seattle high school, Mr. G. B. Morrison of the McKinley high school, St. Louis, Chicago University under the leadership of President Harper, and Mr. Amos R. Wells of Boston, made investigations with similar results.[7] Mr. Wells conducted an investigation recently in the New England states. He received 180 replies and there was practically but one who took a decided stand for high school secret societies. The question was, "Do you believe in high school fraternities?" Language could not express disapproval more strongly: such expressions as "decidedly not," "most emphatically, no," "not in the least," "under no

[7] *Journal of education,* January 5, 1911.

consideration," "totally and aggressively opposed to them." The question, "whether any advantages came from them," was also answered strongly in the negative.

In 1905 a committee appointed by the National Educational Association to report the results of an investigation on the high school fraternities concluded as follows: "Resolved, That we condemn these secret organizations, because they are subversive of the principle of democracy which should prevail in the public schools; because they are selfish, and tend to narrow the minds and sympathies of the pupils; because they stir up strife and contention; because they are snobbish; because they dissipate energy and proper ambition; because they set wrong standards; because rewards are not based on merit, but fraternity vows; because they inculcate a feeling of self-sufficiency among the members; because secondary school boys and girls are too young for club life; because they are expensive and foster habits of extravagance; because they bring politics into the legitimate organizations of the school; because they detract interest from study; and because all legitimate elements for good—social, moral, and intellectual—which these societies claim to possess can be better supplied to the pupils thru the school at large in the form of literary societies and clubs under the sanction and supervision of the faculties of the schools."

Methods for dealing with them.

There are three methods adopted by schools over the country, viz.: (1) *Laissez-faire* method, or that of leaving them alone. Its essential feature is "non-interference." The fraternity is a manifestation of the gregarious instinct. This instinctive tendency is here and must be reckoned with. Elders can not satisfy the boys' interest, and can not make satisfactory substitutes. The outward show of the fraternity, tho trifling, is everything to the boy and he should have it. Later in life he will see the folly of his acts and will be better prepared to live on account of them.

We often hear that argument, but it is a mere deception. Suppose that the social instinct is natural and must be provided for, is the fraternity the proper means for its growth?

The aim of education is to mold and guide instinct so that it will have the best effect on the individual and society. The consensus of opinion of educators who have had experience says the fraternity does not make this provision, that it is selfish, exclusive, and looks only to the betterment of a few. This method overlooks entirely the mission of the public school.

(2) Another method is that of indirect substitution. The social appeal is recognized and an effort is made to satisfy it by forming other organizations in order that the students will soon recognize the inadequacy of the fraternities and forsake them. Experience has proved that this method does not solve the problem. The students' interest in fraternities, instead of being lost, is intensified. They have more need for political methods to get the offices of these new organizations. They claim that the new organizations could not be run without them. It follows clearly that this method is a failure.

(3) Absolute prohibition. This is the only effective way of dealing with this unnatural growth in our high schools.[8] The method of prohibition involves:

(1) Attitude of parents. One of the important elements in elimination of these secret societies is the attitude of parents. Wherever parents have encouraged their children to obey the regulations of the school very little trouble is experienced. Boys should be taught to obey law, as it is the first requirement of good citizenship. Parents, guardians, and all who have influence with high school students should use all proper means to influence them to refrain from joining high school secret societies.

(2) Discrimination against them by college fraternities. College fraternities should assist in the elimination of high school secret societies by placing a boycott on all high school students who have joined them. High school students emphasize to a large degree only the non-essentials of college fraternities—the phase which brings out the only undesirable element. They do not and can not develop the strong

[8] *Education*, vol. xiv, 1906.

points. They reflect discredit rather than credit upon college fraternities. The storm which has already descended upon high school fraternities and is sure to destroy them, may gather sufficient force to destroy the older organizations. If this were realized by college fraternities they would aid in the elimination. It is certainly evident that their interest lies in discouraging high school secret societies as a means of self-protection. By active discrimination against them college fraternities would win approbation and make their own position and continued existence more secure. The three fraternities of Butler College, Delta Tau Delta, Phi Delta Theta, and Sigma Chi, have decided to bar high school fraternity students and have written to other schools in Indiana requesting them to make similar action. This stand will be a powerful agency in eliminating high school secret societies in that state, and would be elsewhere.

(3) Acts by the school boards. Boards of education in practically every city in the state and nation have past regulations prohibiting high school secret societies. Some deprive students of all activities except classroom work (this is not effective, altho the membership will degenerate into the poorest material in the school). Others make them give up fraternities or school.

They justify their action by other laws which seem to interfere with parental authority. There is the curfew, which is no doubt enforcible. The parent might as properly say that he will determine when his child must be at home and the law has no right to specify a certain hour. But there are the community interests. The schools cost taxpayers an enormous amount of money and they demand full value. They want the school to be a workshop and not a place for dissipation of time. There is a serious business to be attended to, the development of future citizens. The school board is a legal body to make laws for the schools which best prepare young people to take a place of usefulness in society. Upon investigation they have determined that secret societies destroy the efficiency of the student and therefore of the school, and hence have past regulations against them.

Section 76 of the board rules in Chicago follows: "All persons attending the public high schools of Chicago, who are members of secret societies known as fraternities or sororities, existing wholly or in part in any high school in the city—shall be expelled from the schools."

(4) Legislative enactments. The following states have past laws prohibiting fraternities: viz.: California, Oregon, Washington, Kansas, Nebraska, Iowa, Minnesota, Michigan, Indiana, Ohio, and Vermont. These laws are all similar. The law in Kansas refers to high school pupils only. In Ohio it is unlawful for any pupils of the public schools to be members or assist in any way in maintaining high school secret societies. The Minnesota law provides that no pupil of the public schools can be a member of or assist in maintaining a secret society wholly or partially from membership of pupils of the public schools. The matter is placed in the hands of the school boards. The law of Indiana given below is typical. "That the common schools of the state of Indiana, both elementary and high schools, shall be open to all children until they complete the courses of study . . . and they shall be subject to the authority of the teachers therein and to all rules and regulations provided by the proper authorities for the government of the schools. It shall be unlawful for pupils . . . to form secret societies, fraternities, or other similar organizations in such schools; and the board of trustees of any city, and township trustee, and the superintendent of any school are hereby required to enforce the provisions of this act by suspending, or, if necessary, expelling a pupil in any elementary or high school who refuses or neglects to obey such rules or regulations or any of them."

(5) Decisions of the courts. Several legal contests have arisen as a result of action taken by school boards and legislative enactments relative to high school secret societies. Opponents of these regulations—usually ill-advised parents—urge that such rules are a violation of personal liberty and the rights of parents to dictate the conduct of their children. They say that such an order from school boards is a stretch of authority from the schoolroom to the home, and resent it.

They seemingly forget that their children must obey such regulations as school authorities deem reasonable, based on the inherent nature of the school organization, and for a violation of such rules they can be expelled. "His right to attend school depends on his willingness to obey the law." [9] "Schools are established for benefit of all inhabitants, but the enjoyment is a common and not an exclusive personal right. The right must be exercised under limitations, and is qualified, not absolute." [10] School authorities can punish pupils for acts done out of school adversely affecting it. "If the effects of acts done out of school hours reach within the schoolroom during school hours, and are detrimental to the good order and best interests of the pupils and the school such acts can be forbidden." [11]

The foregoing decisions give school authorities a large scope for the passing of such regulations as they deem necessary for the proper management of the schools. They are at least presumed to be good judges of what the schools need, and have possession of facts. Their authority is generally exercised legally and reasonably, as court decisions prove. From cases cited we reach the following conclusions, viz.: (1) School authorities have power to make all reasonable and required rules for the management of schools. (2) Pupils must obey these rules. (3) The right to attend school is conditional and not absolute. (4) The right to attend may be denied if rules are violated detrimental to the school.[12]

The above principles of law have been upheld by the courts concerning high school secret societies. A board of education is a legal authority to make laws governing the conduct of schools. Many of them have said that high school students can not belong to secret societies, because the societies destroy the

[9] Vermillion et al. *v.* State. Englehart, 110 Southwestern.

[10] Sherwood *v.* The inhabitants of Charleston. 8 Cush. (Mass.) 160.

[11] Burdick *v.* Babcock, 31 Iowa 562.
1906—Kinzer *v.* Toms et al. Iowa 441-105, N. W. 686.
State ex rel. Dresser *v.* Board of Education of St. Croix Falls. 135 Wisconsin 619, 116 N. W. 232. May 8, 1908.
Lander *v.* Seaver, 32 U. T. 114; Am. Dec. 156.

[12] *World today,* vol. xix, 1337-1342.

efficiency of the pupil and therefore the efficiency of the school. These regulations are conceived in love for the common schools and not out of malice toward any one. The thing being fought is the principle underlying these fraternities and not the individual.

Fraternities that have managed to persevere as far as the supreme courts have been unanimously defeated. There have been a number of supreme court decisions which are a unit upholding the right of school boards to regulate school activities. The first, and for that reason the most famous, is the Seattle case.[13] This case has encouraged school authorities to take a definite stand against high school secret societies. It has proved to be a safe precedent. A brief statement of the case follows: George Wayland, a minor, eighteen years of age, was a member of the Gamma Eta Kappa fraternity and refused to resign when so requested by the board of education. He was deprived of all school honors except classroom instruction. His father sued the school board, seeking to enjoin them from enforcing their regulation depriving his son of school privileges. It was alleged that he was a member of a Greek letter society, and that he had been unjustly deprived of belonging to the various organizations of the school, such as bands, glee clubs, cadet corps, debating clubs, etc., and that unless he withdrew from said fraternity he would be deprived of the honors of graduation. It was stated that the fraternity had nothing objectionable, that meetings were held at the homes of parents, with their consent and after school hours. A high class literary program was always carried out and improper conduct always prohibited. The decision was against the boy and an appeal was taken to the supreme court of Washington; the judgment of the lower court was affirmed, all five judges concurring.

Many unfavorable finding of facts developed during the trial in the lower court. Letters from various chapters and extracts from the official magazine were read, showing a seditious spirit in the organization. The principal testified that the members were inclined to snobbishness and patronizing

[13] Wayland *v.* Board of School Directors, 86 Pacific 642.

airs toward the school and authority, and that allegiance to the fraternity overshadowed everything else. The court discust the case as within the jurisdiction of the school board alone. The boy had his day in court and it settled the question of school board authority in that state at least.

Similar conditions prevailed in Chicago.[14] Fraternity students were deprived of all privileges except classroom instruction. The superior court of Cook county decided against the fraternity and an appeal was taken to the supreme court of Illinois. The decision of the lower court was affirmed. It was alleged that complainants were all under twenty years of age and attending Hyde Park High School and pursuing courses of study therein prescribed and obeying all lawful rules of the school board; that the fraternity, Phi Sigma, embodies everything for which the school stands and is in no way detrimental to its welfare. Meetings were held after school hours and by consent of the parents. The argument of the counsel for the plaintiff was based on the unreasonableness of regulation. The court in dismissing the case said: "The rule adopted by the board of education shows upon its face that it is not the result of hasty action. . . . Assuming, as we must, that the adoption of the rule was not the abuse of power or discretion conferred by law upon the board, courts can not and should not interfere with its enforcement. Pupils attending the public schools may decide for themselves whether they prefer membership in secret societies, with disqualification from representing their school in various contests. It is for the board of education, within the reasonable exercise of its power and discretion, to say what is best for the successful management and conduct of the school, and not for the courts."[15]

The legal aspects in Colorado are similar to those of other states. The constitution of this state provides for the maintenance of a free public, non-sectarian school system, the instruction to be free and under the control of a board of at

[14] Wilson *v.* Board of Education of Chicago. 84 N. E. 697.

[15] Stallard *v.* White. 82 Indiana 278.
Pratt *v.* Wheaton College. 40 Illinois 186.

least three members whose duties shall be prescribed by law. Into the hands of these directors is placed the "control of instruction in the public schools in their respective districts." [16] After Colorado became a state, the legislature immediately past laws defining the powers of the school boards. The control over "instruction in the public schools" is in the hands of the directors and can not be taken away except by amending the constitution.[17] The first legislature gave to all school boards the "power to make such by-laws for their own government and for the government of the public school under their charge as they deem expedient." This general assembly further prescribed that "every school board, unless otherwise especially provided by law, shall have power, and it shall be their duty to suspend or expel pupils from school who refuse to obey the rules thereof." [18] Since the constitution of Colorado provides clearly the duty and power of school boards, it does not appear that legislative action is necessary. The rules relating to fraternities in Seattle and Chicago have been held by the supreme courts as reasonable. The district courts of Kansas City, Minneapolis, and Denver have upheld the school authorities where similar conditions exist. The decisions of all these judges are certainly persuasive and no doubt conclusive. The regulation of the school board of Colorado Springs is practically identical with those of the cities named. If regulations of other boards have been sustained it is reasonable to believe that the one of District No. 11 would be. The *Cyclopedia of law* for 1910 states the case in a general way as follows: "A school board, under its authority to adopt rules and regulations for the well-being of the school, may deny to pupils belonging to a secret fraternity, contrary to the rules of the school, the right of participating in athletics, military, or literary and similar school organizations, altho the meetings of the fraternities are held outside of schoolhouses and after school hours and with parental consent, where it is shown that such societies have

[16] Constitution of Colorado, Art. IX.

[17] Mills, Annotated Statutes, chapter 109.

[18] Mills, Annotated Statutes, sections 4012-4015.

a tendency to destroy good order, discipline, and scholarship."

The fight will not be won immediately: many chapters will attempt to run secretly, and it will take a little time to locate and exterminate them; but with such powers as those mentioned above which the school authorities have, there is no question of the final outcome of the contest if the authorities are in earnest. Patience and strict vigilance will be necessary; but it is both weak and foolish to suppose that superintendents, principals, and teachers, trained for their work, and school boards composed of men of ability and standing, are less capable of meeting the situation than immature high school pupils. Altho a little time may be required, the abolition of high school secret societies is assured if school authorities really desire that abolition.

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[Recent decisions of the Supreme Courts of Denver, Colorado, and Emporia, Kansas, have been handed down by Judges Whitford and Meckel respectively, supporting the actions of their school boards.

The Colorado State Teachers' Association on November 11, 1911, past strong resolutions against secret societies.—The Author.]

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VI

RURAL SUPERVISION IN NEW YORK

With the beginning of 1912 a new and rather radical scheme for the supervision of the rural schools—that is, all schools outside of the cities and the villages of five thousand inhabitants—went into operation in the State of New York. The controlling idea of this new plan of rural supervision is that it is time for the "rural school problem" to be dissolved in the proposition that the country schools are to be organized and supervised as completely as the city schools. I am glad to respond to the request of the EDUCATIONAL REVIEW that I shall say something about the features of this plan.

First, it is well to say a word about the alleged plan which it has supplanted. The legislature of 1812 past an act (*a*) creating the office of state superintendent of common schools; (*b*) providing for the election of three town commissioners in each town at the annual town meeting, whose duty it should be to have charge of the state school moneys apportioned to the town, to divide the town into separate school districts so as to accommodate all the families as well as might be, and generally to represent the state in looking after the school interests of the town; (*c*) providing for the election at each town meeting of not to exceed six other persons, who with the town commissioners should constitute a board of town school inspectors, who were required to examine and license teachers, inspect the schools, and report to the local trustees on the proficiency of the schools; and (*d*) providing for the election of school trustees at the district meeting in each district, who were required to build and maintain the schoolhouse and employ the teacher.

The essential provisions and the thought of this act have continued in operation without interruption for an even hun-

dred years. The titles of the supervising officers and the units of territory they supervised were changed several times because of dissatisfaction with something done, or because it was thought some reform might be effected, or because a political party gained the power to put some of its opponents out and some of its partizans in by means of a reorganization; but the idea that the rural schools should be lookt after by lay rather than professional officers, who were not required to possess, and were often actually without, any substantial qualifications for supervising the teaching in the schools, has been in operation for a century. They exercised in a general way the authority of the state over the schools of a town, a county, or half of a county; they were chosen on political tickets at general elections; they were very dependent upon politics, and many of them became wheels in the machinery of the state politics.

Of course this gave the old plan a hard and fast hold upon the common thought of the people. To be sure, many excellent officers were chosen, and some without much fitness at the beginning became measurably efficient; but aspiration for the places was not limited by fitness; parties regarded the places not only as legitimate political plunder, but made the tenure of the men who held them contingent upon subordination to party leaders and activity in the party organization. The scheme worked very well indeed for many years, and was doubtless the only one possible in the early days when there was no such thing as professional school supervision either in city or country, and before politics had developed so many masterful artists; but it came to work very badly as school supervision became more and more an exact science, and more and more was demanded of the schools. Even that did not make its dislodgment easy so long as patriots wanted places and the political captains in the county committees and the legislatures needed lieutenants, and so long as it was not difficult to make many people believe that their " rights " to elect their own officers would be outraged if the law limited the selection of school superintendents to those who could supervise schools, or provided for appointing school experts in some other way

than by means of a caucus and a general election. When a bill providing a better way was prepared and introduced in the legislature by the State Education Department, it could hardly muster enough support to sustain the respectability of the department. But we said we would take our time for pushing the matter to a conclusion, and began a systematic appeal to the public opinion of the state. In particular an aggressive agitation was waged in the educational and agricultural organizations. Honest objections were answered patiently. Subtle ones were exposed. Once more the advantage of going directly to the people with a good cause was demonstrated. It required more courage to be against the measure in the legislature of 1910 than to be for it in the legislature of 1905. In 1910 it became a law, and went into complete operation at the beginning of 1912.

The essential features of this law may be set forth as follows:

1. It practically doubles the number of rural supervisory districts, thus making districts small enough to permit of frequent visits to all schools and frequent meetings of teachers for instruction and conference without their being away from home overnight.

2. It creates a board of school directors in each supervisory district, consisting of two members from each town, chosen at the general election, whose sole and only duty is to appoint a superintendent of schools. The tenure of the superintendent is five years, and he has a salary of twelve hundred dollars paid by the state and also has his expenses up to three hundred dollars audited and paid by the state. The salary and the maximum of expenses may be increased by the towns in the supervisory district thru the action of the town supervisors. The manner of appointing the superintendent was the most difficult feature of the whole matter. Many methods were considered, and this one finally chosen because it harmonizes with the method of appointment in the cities, and it was thought that, in view of the fact that it centralizes responsibility in a board which has no other power, it would go quite as far as any other method could to remove the appoint-

ment from the influence of politics and give the superintendent needed independence.

3. The board can appoint the superintendent only from the eligibles approved by the State Education Department. To be eligible one must hold a certificate of the State Department conferring the right to teach for life in any school in the state, without further examination, and must pass an examination in the teaching of agriculture prescribed by the Commissioner of Education. This provision about the agricultural examination was not in the bill as originally prepared; it was inserted on motion of a member when the measure was under consideration in the lower house; but as it was harmless and possibly helpful no effort was made to repel or eliminate it. The school directors, to the number of about eighteen hundred, were chosen at the general election in November, 1910. The people were urged to choose two good men in each town without regard to partizanship. This was generally regarded. In some cases each of the leading parties named one man. Immediately after their election the directors were asked by the Commissioner of Education to rise above all partizanship, to refrain from committing themselves to any candidate until after full consideration of all possible candidates by the board, and if necessary to repel candidates and look far for the best superintendent they could find for their district. The law required the boards to meet, but only for organization and discussion, on the third Tuesday of May, 1911, and to meet for the appointment of a superintendent on the third Tuesday of August, 1911. The terms of office of the district superintendents chosen in August last will expire July 31, 1916. Their terms are made to expire at the end of a school year; thereafter the regular term of all district superintendents will begin August 1, which is the beginning of a school year. District superintendents will be chosen on the third Tuesday in June in 1916, and thereafter every five years. Members of the boards of school directors will be chosen in succeeding years. Nearly all boards appointed superintendents on the day named in the law. A few boards could not agree at once and adjourned to a later day, but have since made

appointments. Opposition to the system has practically disappeared. All are now disposed to give it a thoro trial. Candidates rustled around a good deal to secure support. One who tried and failed to qualify decided that the law invaded the Constitutions of both the state and nation, but up to date the court has disagreed with him. On the whole, the appointments of superintendents have gone very smoothly. There are 207 supervisory districts. Of the 206 superintendents appointed at this writing, 62 are college graduates, 92 are graduates of state normal schools, 35 hold state life certificates, and 28 hold teachers' permanent certificates. Some hold two forms of certificate. All have had pedagogical training and teaching experience.

4. The Education Law provides:

"*Section 394. District Superintendents not to engage in other business.* A district superintendent of schools shall devote his whole time to the performance of the duties of his office and shall not engage in any other occupation or profession. Such time as shall not necessarily be devoted by a district superintendent of schools to the performance of the clerical and administrative work of his office shall be devoted to the visitation and inspection of the schools maintained in his supervisory district."

The law is very explicit in the powers which it confers and the limitations which it places upon the superintendents. They are also subject to the rules and directions of the Commissioner of Education and are removable by him for immoral conduct, incompetency, or neglect of duty. As the directors may fill a vacancy at once, there is less objection to creating one than when election was by the people. The superintendents have the power to reform and reorganize the school system in all of the rural parts of the state. They may require hygienic and properly equipped schoolhouses. They may condemn schoolhouses and outbuildings and require others to be built. If they do not abate nuisances, they may be abated as nuisances themselves. They may require additional furnishings, and see that whatever a school needs is provided. They are to travel about among the schools continually, looking after the program and the morale and the teaching. They are to hold conferences of teachers by towns, or two towns, as may

be convenient. They are to have similar conferences with trustees. They are to get the people of the different districts together now and then and agitate for better schoolhouses and more attractive grounds, for better wages, better teaching, and more attractive and efficient schools. They are to do all that a city superintendent may do, and possibly more than he can do, to make the schools of their districts uniformly excellent. They have full authority to do this, and they will not be allowed to neglect the very important business that has been committed to them. They have been commissioned to lead the educational work of their districts and they must execute their commissions.

This may seem like strong language. Some people require strong language. It is better not to have to use it, but a great undertaking can not be allowed to fail, or partially fail, because of the dearth of determination or the lack of strong language. The district superintendents have been supplied with blanks calling for information concerning every interest of the schools, and will be required to make a detailed report to the Third Assistant Commissioner of Education, at the end of every week, of their work on each day of the preceding week, to the end that no interest of any school shall be overlookt.

Of course, the new system is to be on trial. The superintendents are to be on trial. So are the State Education Department and the Commissioner of Education. All intend to make good. With modern means of getting about and the present-day facilities for communication, there is no need of assuming that the "country school problem" is an insoluble thing. If the states will put state money, and state authority, and the experience of their educational leaders into the business, there may be just as good schools in the country as in the city, and perhaps even a little better. And when there are it will make farms more valuable, farmers more prosperous and happier, and states stronger.

Andrew S. Draper

New York State Education Department
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VII

CURRENT EDUCATIONAL PUBLICATIONS[1]

Angell, James Burrill. The reminiscences of James Burrill Angell. New York, London [etc.] Longmans, Green, and co., 1912. 258p. illus. 12°.

In addition to accounts of Doctor Angell's early life and public career, this book contains chapters on his Professorship in Brown university, Presidency of the University of Vermont, and Presidency of the University of Michigan.

Büttner, Hermann. Zur grundlegung des erziehungs- und unterrichtsbetriebs an unseren höheren schulen; mit besonderen ausführungen über die hausarbeiten, die schriftlichen klassenarbeiten und den deutschen aufsatz. Marburg in Hessen, N. G. Elwert, 1911. 113p. 8°.

Christiania. Universitet. Det Kongelige Fredriks universitet. 1811-1911. Festskrift . . . Kristiania, A. Aschehoug & co. (W. Nygaard) 1911. 2 v. illus. f°.

Cope, Henry Frederick. The evolution of the Sunday school. Boston, New York [etc.] The Pilgrim press [1911] 240p. 12°.

Field, Jessie. The Corn lady; the story of a country teacher's work. Chicago, A. Flanagan company, 1911. 107p. illus. 12°.

A series of letters, each a record of practical experience, on country-school and country-life improvement, from a "Country teacher."

Fitzpatrick, Edward A. The educational views and influence of De Witt Clinton. New York city, Teachers college, Columbia university, 1911. 157p. 8°. (Teachers college, Columbia university. Contributions to education, no. 44)

Graf, Alfred. Schülerjahre, erlebnisse und urteile namhafter zeitgenossen. Berlin-Schöneberg, Fortschritt (Buchverlag der "Hilfe") g. m. b. h. 1912. 360p. 8°.

Hatch, Kirk Lester. The high school course in agriculture. Madison, The University of Wisconsin, 1911. 40p. 12° (Bulletin of the University of Wisconsin, no. 441. High school ser., no. 12)

Bibliography: p. 37-40.

Henderson, Charles Hanford. Pay-day. Boston and New York, Houghton Mifflin company, 1911. 339p. 12°.

Advocates a social regeneration through the elimination of profit, and a renovation of education by making it an ideal enterprise standing for human integrity and quality.

[1] Compiled by John D. Wolcott, specialist in charge of the Library of the United States Bureau of Education, to which books and pamphlets should be sent for inclusion in this record.

Herrick, Cheesman A. Reclaiming a commonwealth, and other essays. Philadelphia, J. J. McVey [1911] vii, 201p. 12°.

CONTENTS—Reclaiming a commonwealth.—Education the keystone of power.—Old and new education.—Samuel Miller's retrospect.—Unconscious education.—The Nestor of American schoolmasters.—Professional ethics.—A new commercialism.—Supervision of high schools.—Old age pensions.—Retirement funds for teachers.

Inglis, Alexander James. The rise of the high school in Massachusetts. New York city, Teachers college, Columbia university, 1911. 166p. 8°. (Teachers college, Columbia university. Contributions to education, no. 45)

Bibliography: p. 161-166.

International commission on the teaching of mathematics. Mathematics in the public and private secondary schools of the United States. The American report. Committees III and IV. Washington, Government printing office, 1911. 187p. 8°. (U. S. Bureau of education. Bulletin, 1911, no. 16)

Jackson, Edwin R. Forestry in nature study. Washington, Government printing office, 1911. 43p. illus. 8°. (U. S. Department of agriculture. Farmers' bulletin 468)

Marks, Jeannette. A girl's student days and after. With an introduction by Mary Emma Woolley, president of Mt. Holyoke college. New York, Chicago [etc.] F. H. Revell company [1911] 124p. 12°.

Wise and forceful suggestions for girls who would make their school and college days count for more, both while they last and as preparation for the work that is to follow.

Montessori, Maria. Antropologia pedagogica. Milano, F. Vallardi; [etc. etc., 1911] x, 438p. illus., tables. 8°.

Peabody, Francis Greenwood. Sunday evenings in the college chapel. Boston and New York, Houghton Mifflin company, 1911. 300p. 12°.

Reinsch, Paul S. Intellectual and political currents in the Far East. Boston and New York, Houghton Mifflin company, 1911. 396p. 8°.

Among the chapter headings are Intellectual leadership in contemporary India, The new education in China, and Intellectual life in Japan.

Strassburger, Ferdinand. Die mädchenerziehung in der geschichte der pädagogik des 17. und 18. jahrhunderts in Frankreich und Deutschland. Strassburg, J. Singer, 1911. 188p. 8°.

Torchia, Francesco. Pensieri e proposte sulla scuola media. Milano-Roma-Napoli, Società editrice Dante Alighieri di Albrighi, Segati e c., 1911. 155p. 8°.

Williams, Edward F. The life of Dr. D. K. Pearsons, friend of the small college and of missions. New York, Boston [etc.] The Pilgrim press [1911] 308p. illus. 8°.

Wyer, James Ingersoll. The college and university library. Chicago, American library association publishing board, 1911. cover-title, 18p. 8°.
American library association publishing board, 1911. cover-title, 18p. 8°.

Preprint of Manual of library economy, chapter iv.

VIII

DISCUSSIONS

THE MONOPOLIZING WOMAN TEACHER

The first part of the article on "The monopolizing woman teacher," in the EDUCATIONAL REVIEW for January, contains so many good things well said that the last part is doubly disappointing.

After reading that "as a rule women teachers are admirable representatives of their sex, brimming with life, eager, hopeful, earnest, well-bred, conscientious, delightful," one is hardly prepared to find occasional specimens such as we all know, "careless in manners and appearance," lacking "the desire to be attractive," taken as the type of teachers over thirty. "Masculine women teachers"—whose status as "popular in school and out," hardly corresponds to our own observation—are exempted as "not in great proportion or typical." It seems to us that these indifferent women are hardly more so.

Recalling many who are certainly exceptions to the assumed rule, we read with amazement that woman "reaches her zenith as a teacher at 28"! And the test seems to be her ability to marry! It is not unheard of for a teacher over 28 to marry, if that must be the test of usefulness; but we should greatly prefer to have both woman and man, whether single or married, judged by character, by the use made of the opportunities life offers. It is assumed by the writer that woman *can* not as well as "*does* not fully develop until she marries." Noted women come at once to mind who can hardly be called undeveloped, merely because Providence denied them the married state. The writer overlooks the fact that not a few teachers remain single thru devotion to the memory of a love that enriched their lives but was prevented from full fruition thru death. He ignores the mother love,

that, deprived of personal treasures, expends itself freely on the larger group of other people's children.

In selecting mothers or widows as *per se* the most desirable teachers, he forgets that not every mother succeeds in training the one, two, or three children in her special charge, a fact which increases the difficulties of all teachers. To be consistent, Mr. Bardeen should warn bachelors and all childless men not to attempt teaching; for if woman fails, whose natural aptitude is greater, what success can mere man hope for? His theories will surely prove wild and fruitless, his lack of a sense of responsibility will be disastrous. Yet we have known even men to succeed in spite of such handicaps!

Is it not wiser to place the matter of sex in teaching on a different basis, as has often been done? We believe fully in efficient men teachers. We wish the ranks might be largely increased by their enlistment. We would seek means to encourage and attract them; *because* we believe that man and woman, with their different characteristics, supplement each other in all spheres of life which they enter together. We believe they should supplement each other in the training of youth in the school and in the home. Too many fathers ignore or neglect their responsibility in the family.

The test of a woman who "does things" is not to "throw a baseball," but to sweeten life in the schoolroom, or office, or home; to be a tower of strength in her own modest way; to help children find themselves, to encourage them on the road to knowledge and wisdom; to stand for ideals of life that recognize marriage as *one* avenue to usefulness, which may be the most blessed of all, but also may become the greatest torture and the greatest failure, if sought as the selfish end and aim of existence.

HARRIET R. PEASE

GREENFIELD, MASS.

In the January number of the EDUCATIONAL REVIEW, page 39, in an article entitled "The monopolizing woman teacher," Mr. C. W. Bardeen of Syracuse says that this is the day of

laboratory method, and proposes an experiment to verify his conclusion in the following extract:

"A and B have been friends, but A has what seems to him unquestionable evidence that B has wronged him. He seeks B out and points a pistol at his head. B says, 'I see you mean to shoot and I can not prevent it. You are justified from your point of view and I can not change it. I acknowledge myself at this instant a dead man. But why bring scandal on both our families? Whatever you think of my conduct, you know my word is good. I promise to sail by a Saturday steamer and not to reach the other side. You will have taken my life, but only you and I will know it.' A consents and B sails. On the ship he discovers what had seemed the impossible: convincing proof of his innocence; proof that when placed before A, as it easily may be, will restore their friendship. Shall he still keep his promise?

"I venture to say that if this situation is placed before the first twenty high-class men you meet, nineteen of them will reply: 'Unquestionably; B was reprieved, not to exculpate himself, but upon his definite promise within a limited time to substitute another form of death for that impending at that instant. The maintenance of faith between man and man is more important than any individual life.' I also venture to predict that put before any score of women all of them will exclaim, 'What nonsense! Why, even A would rather B should live.'

"It would be a calamity for a generation of boys to grow up without the conviction that the most important of human obligations is the maintenance of faith between man and man. They will never acquire it from women."

Will it not occur to the man of good sense, not to say common sense, that the teacher and the writer on education are likely to become impractical and visionary? I wonder if Mr. Bardeen ever put the ethical question above involved to any group of men. He predicted that nineteen out of twenty men would vote that B was in duty bound to quietly commit suicide (inferentially by jumping overboard on the voyage), tho innocent, in order to keep his word, tho so wrongfully demanded. He says that all women would vote the other way. I grant that most intelligent women would be sensible enough to do so, and claim that most intelligent and well-informed men would vote just the same way as the women.

I propounded the situation to the Fortnightly Club in Grand Forks, without giving any leadings from Mr. Bardeen's article. The personnel of the club is made up of college professors and instructors, ministers of the gospel, lawyers, doc-

tors, and business men. Thirty-one voted that B was, in no way, in duty bound to substitute for himself another form of death for that threatened by A, and not a single vote was cast in favor of such substitution.

I also tried the experiment in two classes of sophomores and juniors in psychology, with the following result:

Sixteen men voted against the suicide and one for it, while all of the twenty-three women voted, as Mr. Bardeen said they would, against it. But how about the men?

I challenge Mr. Bardeen to make the experiment. This conclusion of his, whatever we may think of the others in regard to men and women, was a mere guess, a subjectively spun theory, rather than the result of investigation and experiment. He certainly has not been fortunate enough to have been "*feminized*" on this ethical problem.

JOSEPH KENNEDY

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THE ABSORPTION PROCESS IN ENGLISH COMPOSITION

To the Editor of the EDUCATIONAL REVIEW:

About the middle of the last century James Russell Lowell, in crossing the Atlantic, ran into some bad weather. In describing his trip he mentions the fact that he took his soup "by the process of absorption," a whole plateful having been washed unceremoniously into his lap. He does not say whether this method of taking nutriment really contributed to the rotundity and full-bloodedness of his figure. Probably he did not repeat the process often enough to be able to tell. Recently Professor Lounsbury has created considerable excitement by his advocacy of the absorption method as the way to learn to write, and the only way, and by his denouncing the three-meals-a-day system of instruction—the compulsory composition course. If that sort of humor which consists in calling attention to the obvious is a legitimate variety of facetiousness, Professor Lounsbury has certainly been very funny. Our modern device known commonly as freshman

composition has never turned out Hawthornes and Lowells, and I suspect it never will. Not that we who labor as freshman English instructors object to an occasional pepper of genius to add spice to our hash of dreary themes, but we have come not to expect it. We disappointed our own selves in this matter of genius, and why should we look to other men for the light that failed in us. Today the compulsory composition course aims at nothing further than to assist the student in his efforts to write *decent* English—English that is clear, sensible, and unstilted. *There* is a consummation devoutly to be wisht. No teacher of a compulsory course needs a higher ideal. If for the motley array that the high school sends up every year to the college he can do this much, he is willing to hand over to an advanced course the work that seeks for the finer things in writing—beauty and power of expression. One feels that Professor Lounsbury has been especially funny—tho in a way that we don't quite understand—in his apparent recommendation of the let-alone policy. The illiteracy of the college graduate has become a favorite theme of the editorial pages of our newspapers. (I, myself, was recently highly commended for giving a spelling test to a class in advanced composition.) But were the college student left merely to the absorbing of an efficient style from what is sure to be but a bowing acquaintance with the masters of writing, college faculties would hang their heads even more than they now do over the quality of their output. Surely, Professor Lounsbury can not be quite serious.

Again, I can not help feeling that Professor Lounsbury is far from the point in his statements concerning the operation of a compulsory course. We are not today compelling students to write themes on subjects of which they know nothing—themes which are, therefore, of painful extraction, and worthless in themselves. Contrary to what he says, I believe that every student has ideas that may legitimately be considered suitable and sensible material for an undergraduate theme. Nor is the student's experience in life so slender that he has no right yet to be expressing his ideas at all. Why not prevent his talking until his opinions have a certain final-

ity? It would be just as sensible. The average student's mind is not a vacuum. He touches some points of life much more closely than does his instructor. And of his ideas, whatever they are, of his experience, however slender it may be, his themes should be the expression. "The average student loathes the writing of compositions." Not at all, Professor Lounsbury; he doesn't loathe it. He loathes the artificiality of a machine-like course that drones monotonously along, chanting solemnly of unity, coherence, and mass; he loathes the soul-tormenting task of writing a four-page theme on a subject entirely foreign to his experience and interest; and he loathes old-maidish punctiliousness, overinsistence on matters of trifling importance, when the life of the thing is forgotten.

Many crimes have been committed in the name of freshman composition. But it has come and come to stay; it will always be a required subject. Let us teach it then as it should be taught. Let there be life in it. Let us make the student feel that he as an individual has the power to think, that he already has reacted somehow to life, and that the pen merely gives him the opportunity for self-expression. That expression may be as spontaneous as the words spoken by the lips; it should come forth as naturally, and give as great pleasure to him who writes. It is a commonplace to add that self-expression is—education.

George Carpenter Clancy

Beloit College

IX

REVIEWS

College men and the Bible—By Clayton Sedgwick Cooper. New York: Association Press, 1911. 195 p.

There is an oft-heard comment that the Bible is not read and known today as it used to be. Teachers of literature in our colleges and universities frequently deplore the fact that to the youth of today allusions to Bible characters and incidents have to be explained or they convey no meaning. But the tide is turning. There are many signs which give substance to the belief that the low-water mark of neglect has been reached and that the stream of a better and more thoro knowledge of the Bible is now rising.

In his book, *College men and the Bible,* Mr. Clayton Sedgwick Cooper, secretary for Bible study, Student Department of the International Committee of the Young Men's Christian Associations, gives a striking presentation of the growth of voluntary Bible study now carried on in the colleges, and likewise makes an instructive analysis of the causes and methods by which the results have been achieved. The movement for awakening a new interest in the Bible, originating in 1903, extended in 1909-10 to " 490 institutions of the United States and Canada, with 28,562 college men reported as continuing in their attendance upon these voluntary Bible classes for two months or more." Nor is the movement limited to this side of the world. Thru enterprising leadership and organization, Bible study has gained a strong foothold in many parts of the Orient, in India, Japan, and China. And it is the Bible in English that is studied. Of India it is said, for example, that " while this book has been translated into the majority of the four hundred and five or more separate languages and dialects . . . college men usually choose the English version."

To what has this aroused and successful activity been due? There are two underlying causes, viz.: thoro, systematic study of the Bible along modern lines, and practical and personal application of its truths to actual life. The Bible has not been regarded as "a magical relic or a fetish of other-worldliness"; neither has it been studied for the purpose of securing "a chain of mottoes or proof-texts taken from their context." The constant aim has been to bring to bear "scientific thoughtfulness, method, and accuracy;" to understand the Bible "in relation to the historical development of humanity"; to grasp its central meaning and to see "the great sweep of its universal principles and personalities." As the bibliography given by Mr. Cooper shows, textbooks covering a wide range have been carefully prepared by college professors and Bible specialists. In short, the Bible has been "rediscovered."

No less notable is the way in which Bible study has been related to individual conduct, to college ethics, and to social service. The seminar plan, by which a small group meet with a student or faculty leader for frank and free discussion, has been mainly followed with the result that men have been set thinking and their moral imagination has been liberated. That no moral truth is understood until it is translated into action has been a basic principle. Constructive work has been done in the college community which, according to sound educational theory, has been viewed as a vital social institution in itself as well as a place of training for the later tasks of life.

As the movement described is relatively new it is evident that there are many places where more thoro work is demanded. The most urgent need is for a larger number of well-trained, educated leaders. Considered as a record of what has already been achieved in a difficult field, Mr. Cooper's book is an interesting and encouraging summary.

Raymond C. Knox

Columbia University

The learning process—By Stephen Sheldon Colvin, Ph.D. New York: The Macmillan Co., 1911. p. 336. $1.25.

In this book Dr. Colvin discusses the fundamental conscious activities involved in the learning process. As the learning process is taken in its broadest sense, the treatment necessarily covers most of those aspects of consciousness found in any text in psychology, commencing with instinct and ending with reasoning. The material is not in any sense original, being gathered largely from the recent results in experimental psychology and pedagogy, massed around a few topics with indications of their significance from the standpoint of school instruction. The same method is followed in the treatment of all topics: first, a psychological analysis of the process; second, a summary of the experimental results which have received general acceptation; third, suggestions as to pedagogical applications. Thruout the book the emphasis is pragmatic, being placed upon the need of purposeful adjustment, both physical and mental, as the essential element in the learning process.

Chapters I-IV are largely biological, discussing the nature of consciousness, instinct, and habit, with the part played by each. Education is defined as adaptation to an enlarging and variable environment, governed by purposes or ideals. Capital must be found in the instinctive equipment of the child, and the methods are those of nature; namely, trial and success, imitation and free ideas. The function of the school, then, is to narrow the field of reaction in order to prevent waste; to provide opportunities that encourage actions leading to ideal adjustments, and to discover efficiency. The value of substitution in dealing with instincts and of focalization and interest in habit formation is stressed. On this level, emphasis should be put on the disposition to learn new facts and to acquire new habits, and not on facts and habits already acquired.

Chapters V-VI deal with sensation and perception. These are recognized as fundamentally important in mental growth, hence the need: of the systematic testing of children in order to discover and correct sense defects; of activity in connection

with sense material; of variety of stimulations; of guarding against inaccuracy of percepts due to the suggestibility of the child.

Chapters VII-VIII deal with imagination. The chief point of importance is the emphasis on verbal-motor or mimetic imagery. This type is considered fundamental in the thinking process, being an expression of attitudes rather than word-symbols. The relation of mimetic imagery to pragmatism, to instrumentalism, and to imageless thought is indicated, and the special functions of concrete and abstract images is suggested.

Chapters IX, X, XI, XII discuss memory and association. The primary laws of contiguity and similarity, with the secondary laws of primacy, recency, frequency, and vividness, are accepted as explanations of the phenomena of association and memory; but their economical working, for the learning process, is determined thru their control by the law of purpose. Experimental evidence is offered on such topics as the following: (1) Whole vs. sectional methods of memorizing; (2) distributed vs. concentrated learning; (3) length and distribution of recitation periods; (4) methods, aids, and stages in memorizing. Application of the laws of association to the investigations of report and testimony, and to the dealing with criminals as used by Jung are discust. The significance of the results of Frend's work in psycho-analysis in the training of young children is suggested.

Chapters XIII, XIV, XV take up the question of the transfer of training. Analysis of the experimental evidence on the question brings the conclusion that "the fact of transfer can not be doubted. The factors involved in such transfer, the extent to which transfer can take place under any given set of conditions, and the best methods of securing such transfer will long doubtless remain questions for investigation and discussion." The practical suggestions are: (1) Make the specific activities to be transferred the object of thought; (2) train in the technic of the learning process; (3) choose for training activities possessing elements common to many others; (4) cultivate general emotional attitudes thru specific training.

Chapters XVII, XVIII, XIX summarize the theories of attention and interest, and show their relation to conscious activity; to incentives and deterrents; to fatigue, and to will. The dangers incurred by soft pedagogy in its fallacious interpretation of the doctrine of interest are discust; the need for effort, the value of it, and of "grind" in education are shown.

Chapters XX, XXI, XXII deal with the higher thought processes. Thinking is defined as "the onflowing of consciousness, in some direction either definitely recognized or vaguely felt." The necessity of the "conceptual attitude" in thinking which deals with variable situations and its relation to the simple perceptual attitude and to the more highly developed judgment attitude is brought out. The reasoning process is analyzed, and the lack of clear distinction between the modes known as *inductive* and *deductive* is insisted on. From the standpoint of application the greatest need in school practise is that of more vital "problems" in all instruction and in all subjects, in order that the thinking process may be legitimately used and functionally developed.

The chapters on memory and association, and on transfer of training are perhaps the most valuable. The summary of the experimental work done in these fields is clear and concise and the suggestions for application to school practise are very good. As a whole, the book seems to the reviewer to lack a well-developed, unifying principle, tho the title would lead one to expect such a treatment; however, because of its clear analysis of the intellectual processes, its experimental evidence and the direct and forceful application of psychological theories to the field of education, this book is a valuable addition to the literature of educational psychology.

Teachers College
Columbia University

Naomi Norsworthy

Professor George W. Botsford combines the most precise and accurate scholarship with extraordinary capacity as a writer of simple and well-ordered textbooks. His *History of the Ancient World,* which has just come from the press, presents in a single volume of not too great size a complete view of the Ancient World from the rise of civilization in

the Euphrates Valley to the break-up of the Roman Empire. The work is thoroly well done, and the apparatus for the use of teachers and students, as well as the illustrations, are adequate and well chosen. The book is the best in its field. (New York: The Macmillan Company, 1911. 588 p. $1.50.)

It is not always easy to know what is meant by research in fields where invention is not possible. Students of the humanities will find a helpful guide to an understanding of some aspects of this subject in the volume entitled *Historical research,* by Professor John M. Vincent of the Johns Hopkins University. Professor Vincent offers numerous concrete illustrations to what is meant by historical research and the weighing of evidence, and includes a most interesting discussion of the psychological factors in history. He has made a capital book, and an interesting one. (New York: Henry Holt & Company, 1911. 250 p. $2.00.)

A sympathetic and satisfying *Life of the late Count Tolstoi* has been written by Nathan Haskell Dole. (New York: Thomas Y. Crowell & Company, 1911. 465 p. $2.00.)

The delightful series entitled English Readings for Schools has just now been enriched by Scott's *Ivanhoe,* edited by Alfred A. May of the Shattuck School, Faribault, Minn., and by Stevenson's *Inland Voyage,* edited by Professor Mims of the University of North Carolina. (New York: Henry Holt & Company, 1911. 579, 291 p.)

No one of our American writers on educational subjects commands a more genial and interesting style, and reveals a greater amount of common sense, than Dean Briggs of Harvard University. His little volume entitled *Girls and education* ought to be in the hands, and its contents in the minds, of the thousands of young women who are now registered as students in the American colleges. (Boston: Houghton Mifflin Company, 1911. 162 p. $1.)

It is not easy to write a book of travel over familiar ground that will present any new element of charm or pleasure, but we can commend cordially *Chosen days in Scotland,* by Josephine H. Short. (New York: Thomas Y. Crowell & Company, 1911. 385 p. $2.00.)

X

NOTES AND NEWS

There was printed in the EDUCATIONAL REVIEW for January a notice of the *Sixth annual report of the President of the Carnegie Foundation for the advancement of teaching,* which was prepared from advance sheets, but which should not have been printed until after the publication of the *Report* itself. The Editor regrets the oversight which led to the printing of the notice in advance of the issuance of the *Report.*

Kahn Foundation

Circulars of information concerning the Kahn Foundation for the Foreign Travel of American Teachers have just been issued by the trustees of the Foundation. Two Fellows will be appointed for one year, beginning July 1, 1912, with a stipend of three thousand dollars and an additional three hundred dollars for the purchase of books, souvenirs, photographs, etc. The applications for appointment should be made on a formal blank, which may be obtained from the Secretary of the Foundation, Sub-station 84, New York City, and should be filed on or before March 1, 1912. The present holders of the Fellowships are Professor J. H. T. McPherson of the University of Georgia, and Professor Francis Daniels of Wabash College. They both sailed from this country during the summer, and will have completed their year's travel by about August 1, 1912. They are both planning to make a complete trip around the world.

Library of the Bureau of Education

The United States Bureau of Education at Washington, D. C., possesses a special library of more than one hundred thousand volumes, which, while primarily a working collection for the bureau

staff, is also designed to serve, so far as possible, as a central reference and circulating library for educators thruout the country. It is desired that teachers, school officials, and students of education should be informed of the resources of the library, and know that to them the privilege is freely offered of using these resources as an aid in their work.

In certain classes of educational literature, the library is clearly the most completely equipped in the country. Such classes are its files of official school reports, laws, etc., state and city; of catalogs and reports of universities, colleges, and schools; of transactions of educational associations; and its bound sets of educational periodicals, all of which are constantly augmented and kept up to date. Both American and foreign publications are included in these classes, which form a collection of valuable source material for investigators in educational administration, practise, and history. The library also contains a large collection of school and college textbooks of early and recent date, in all the principal subjects, which is undergoing amplification and arrangement so as to illustrate the history of textbook publication and to furnish examples of the best modern productions in this field.

On subjects in educational history and administration, theory of education, and principles and practise of teaching, the library contains a very full representation of both early and recent works, and special effort is made to secure all current publications, domestic and foreign, which deserve a place in a complete pedagogical library. There is also a large collection of pamphlets, many of them unusual and otherwise of value. The library has a dictionary catalog of printed cards, copy for which is largely prepared by its own catalogers, in cooperation with the Library of Congress, whose system of classification is used for the books on the shelves.

The library offers to readers the use of its material according to two methods—(1) by direct consultation at the Bureau in Washington, and (2) by interlibrary and personal loans.

(1) Suitable reading-room accommodations are available at the library, and visitors are cordially invited to make it their headquarters for the prosecution of research and study,

for which every possible facility and assistance will be furnished. Investigators are allowed direct access to the shelves.

(2) To non-residents unable to visit the library, books which can be spared without detriment to the office work will be loaned free of charge under the interlibrary loan system, by which a library in the borrower's home town assumes responsibility for the loan. In certain cases, books may be loaned to teachers under the guarantee of a responsible school official, or of a personal deposit. Non-resident teachers, schoolmen, and students of education are invited to send requests for the loan of books desired, which will be filled, if possible. Books are regularly forwarded by mail, under frank, and may ordinarily be retained for two weeks, subject to renewal.

The library also supplies bibliographical information on educational subjects, and on request furnishes lists of references to literature on any such topic. It has on file reference lists on more than eight hundred standard subjects, and constantly makes new special compilations, as occasion arises, besides preparing for publication monthly and annual bibliographies of education. As an aid in this work, a card index to important educational material in current periodicals, society publications, and official reports, is maintained.

Conditions at the German Universities

Complaints of overcrowded conditions in the German universities and the evils that result to professor and student and to the whole cause of learning continue to appear in the German newspapers, where they, however, merely reecho what has many times in the last years publicly been said by members of the university faculties and the government educational authorities alike. A recent number of the Braunschweig *Landeszeitung* calls attention to the increase in the number of students in the universities in 1911, according to the last available statistics, from 54,822 to 57,200, and states that the old personal contact between professor and student in the larger universities, and particularly in the various seminars where it is essential, is no longer to be thought of. The professor,

too, under these new circumstances, is obliged to give up so much of his time to teaching and the incidental labor entailed by this increase in the student body that he has no longer the requisite time and opportunity for the research work that has been in the past the crown of German scholarship. This particular article sees a relief only in the constitution of new universities, particularly in the smaller cities, and points out the fact that, notwithstanding the growth in population, no new university has been founded since Strassburg in 1872.

An article in the Berlin *Der Tag,* under the title "Does Germany need new universities?" calls attention to the fact that the number of universities at the present time in Germany is smaller than it was at the beginning of the nineteenth century, when there were in existence no less than eleven universities which have since either been absorbed into others, or for various reasons have been discontinued, and previous to this Osnabrück, Cologne, Treves, and Mainz had already disappeared. It answers the question raised by the title of the article in the affirmative, but insists, at the same time, on the necessity of increasing the material accommodations and equipment of the universities that already exist, and in those cases where relief is most urgently demanded, if necessary to double the teaching force by new appointments.

It is a matter of interest to note that the universities where congestion is most pronounced are those of the large cities, particularly Berlin, with over 8,000 students, Munich, with about 7,000, and Leipzig, with nearly 5,000. Of the twenty-one German universities, sixteen have less than 3,000 students and seven of these less than 2,000—Rostock being at the end of the list with only 920. If new universities were founded, as has been proposed, in Frankfurt and Hamburg, some part, at least, of the stream that flows steadily toward the large cities would undoubtedly be diverted; but it does not appear that the creation of more universities in the minor towns would work notably to effect the relief of the greater institutions from their burden of overpopulation.

EDUCATIONAL REVIEW

MARCH, 1912

I

WEAKNESSES IN AMERICAN UNIVERSITIES [1]

This generation and the one preceding it have witnessed almost the whole of the development of American universities. Of course we inherited some of our thinking and some of our plans from other countries, and, of course, the doings before the Civil War have influenced our later doings in some measure; but in designs, construction, proportions, cost, ideals, and work performed, our highest institutions of learning have been created since the chivalrous and magnanimous peace that was declared at Appomattox. We used to think of the teachers of an advanced institution as less than a score, but now we think of them in hundreds; of students in hundreds, but now in thousands; of property and revenue and endowment in thousands, but now in millions. We used to talk of colleges, but now of universities; of college courses, but now of university "offerings." The courses used to relate arbitrarily and exclusively to literary culture, and to training for the ministry, for medicine and for law; the "offerings" bear very intensively upon all that, but upon infinitely more; upon political administration, upon all of the commercial and industrial employments, and upon many of the mere vocations of the people. Only the rich or the unusually earnest used to go to college, and the rest got on somehow, and the business

[1] Address made before the Associated Academic Principals at Syracuse, N. Y., December 28, 1911.

of the country was managed very well; but now young men and women must go to the universities or be in extreme peril of losing social opportunity and of waiving all likelihood of efficiency and success in business. One must go to a university to become prosperous and respectable. And we have even begun to hear the first whisperings of a demand that nothing shall be allowed in the entire educational system which does not settle it for boys and girls that they *shall* go to a university, regardless of conditions and attributes, and whether they will or no. Children, parents, states, industrial enterprises, political institutions, all of the processes, and the very freedom of our entire educational system, are being rushed and restrained by forces that fair judgment would hold to be not absolutely logical, not altogether altruistic, not exclusively charged with the responsibility of settling all the policies of the country.

I have, of course, no sympathy with the ideas of Mr. R. T. Crane [2] of Chicago, who has published so much rather virile writing in opposition to all schools above the elementary. But I have respect for him. He is clearly sincere. He is a thoroughly successful captain of industry; his house distributed millions of dollars to its thousands of employees at the last Christmas season as their share in the prosperity of the business; and he would have to be named among the first twenty men who have done the most for the industrial prosperity of the Middle West. He says that educators assail him without reading his books. I am not going to assail him, and I have read his books. But I differ with him radically and as a matter of course. He hardly believes in schools at all. He accepts the elementary schools, but nothing beyond. He thinks youth should be trained wholly in offices, factories, and shops, as they were when he was a boy. He knows all about industries and banks, but he has been outside of the intellectual advance of the last two generations. With the vocabulary and brusqueness of the factory, he calls universities frauds, and says they rob parents and children. Of course, he has had his rejoinder. He says one university president called

[2] Mr. Crane has died since this paper was written.

him an "ass," another an "idiot," and a third a "troglodyte." He doesn't seem to resent this: he says it proves his contention that the higher education is worthless, and supports his opinion of the kind of timber the universities use to make presidents of. It would be very amusing reading, if it were not a bit pathetic.

His vital error is that he believes in nothing educational outside of "business," nothing that unlocks new truth, and is uplifting, aside from the doubtful way which "business" has of doing it. He has attained success by drudgery and determination: he thinks his success is the only kind, and his way of reaching success the only way. Both the strength and the weakness of the man are shown by the fact that he does not seem to care if no one agrees with him. Public opinion *is* of weight; wellnigh universal public opinion upon a policy that has been evolved out of the origin, the history, the intellectual and moral aspirations, and the physical struggles of a democracy of a hundred millions of human beings, is bound to make one man care. Without his realizing it, Mr. Crane's methods of inquiry are as unfair and impossible of logical results as his restricted habits of mind. He sends to busy men extended questionnaires which can not be answered categorically, and is critical, if not abusive, because they are not. He gives his time and spends his money in propagating an individual vagary rather than in pursuing an open-minded investigation marked by decent respect for the opinions of mankind. To answer his contentions would require the collection of much data and six months of the time of a man who is hardly likely to be without more pressing if not more profitable employment than proving what the whole world holds to be obvious and established.

There are some things that he says which might well be answered, and doubtless there are some that might well be heeded. Of course, the facts of the case afford, and the literature of the subject contains, ample answers; but the pertinent facts may well be arrayed, and the reasons may well be adduced to aid those who are less familiar with the matter than we are. But if he says things which ought to be heeded,

then they ought to be heeded none the less because he says them. Great movements and great institutions need criticism; surely criticism ought not to be left to their enemies, nor disregarded because their enemies make it. Having no thought of answering Mr. Crane, and putting aside the main contentions of his book, I am, nevertheless, free to say that his claims impel me to speak of some weaknesses in the structure and policies of our American universities which I have long had in mind.

Of course, I must speak of them as a whole, and also as a type. What is said will apply to some more than to others, and, perhaps, to some not at all. Yet we have developed an American type of university: there are certain well defined characteristics, a certain oneness, about our higher institutions of learning which distinguish them very clearly from similar institutions in other lands. The older ones have been made over by, and the newer ones have been evolved out of, our universal system of common schools, out of our fundamental political principle that every child of the Republic shall have his even chance; an open road to the most liberal learning, upon which road he may advance just as far as he will. The common passion for all learning and all schools has brought public support and private endowment to our universities, and in turn that has erected in those universities a system of government, a scheme of organization, a plan of procedure, and an outlook upon an objective point, that are all far apart from those in the universities of other lands; even from the universities of other peoples who are possessed of political and religious freedom, and not open to the charge of being behind us in their love of learning. This process began very early in our history, and it has become more and more accentuated by our progress and growth. Our democracy and our money have given rise to a type of university that is peculiar to ourselves. In this type, and often in consequence of the very causes which have created its greatness, there have developed some weaknesses, which I shall not refrain from mentioning because they may have been offset by compensatory advantages, or because they are more of a

menace to some institutions than to others, or because they have become more pronounced in some parts of the country than in other parts. One who is obliged to speak of these things in general terms is confined to the weaknesses that have appeared so commonly in the type of universities that has developed in America, that may be predicted at given stages in the progress of institutions yet to be developed.

The lust for riches and bigness and social influence and political power is a weakness in American universities. It is very American, but it is not scholarly. It is not meant that America stands for grossness, but it can not be denied that its spirit and predominant attributes make for commercial prosperity, for business success, for the acquisition of houses and barns and riches, rather than for scholarship. Of course, riches may be very useful to the progress of scholarship. It is hard to see how any can asperse the motives of rich men and women who have given to schools. But there is a deep gulf between wealth and learning. Riches may weight learning down rather than uplift it. Noble men of means see this and try to avoid it. But it is not wholly avoidable. Human organization with plenty of means is hardly able to completely withstand the influences which are inherent in the conditions which surround commercial prosperity and accumulating wealth. Educational institutions, as well as men, have reason enough to pray to be delivered from both poverty and riches. It is most surely so in America, where fortunes are so many and so great. That it might be so in any other country of opportunity does not lessen its seriousness here. It is not so true of the masses in other countries as of the masses here, and there is little danger of the universities of other countries being affected by it as they are here. Real scholarship is seldom rich, or, at least, it cares little for riches. If rich, it puts scholarship above riches, and uses its riches to promote scholarship. It is modest. It thrives under humble roofs, and it dwells in pretty close relations with nature and with God. Its ambition is the acquisition of knowledge, and its highest ambition is to liberate another atom of scientific truth. Great universities have grown in all lands and centuries by scholars

seeking the light and gathering about great teachers who could point the way to it. And if in any country the universities shall become brazen in their quest for money, learning will be grievously wounded in her own house.

The ambition of American universities is to secure gifts and appropriations, to erect sumptuous buildings; and to multiply teachers and matriculants has become a purpose so pronounced as to be a menace. The president is often chosen because he can get money. The potentiality of the organization goes into this quest for bigness, this consuming American desire to be first in the race or at the top of the heap. Mere bigness is not necessarily a weakness: it even has certain advantages; but the success of presidents is measured by the material growth and by numbers; and the struggle for bigness and, particularly, for magnificence, benumbs and belittles the power to struggle for knowledge and for truth. The passion and the trend set up standards that mislead youth and confuse the common thinking of the country. That is a decided weakness in our American universities, and it is, in a considerable sense, peculiar to them.

That is not all that is peculiar to them. They gain the advantages and share some of the disadvantages of our democracy, of our universal support of, and universal disposition to manage, all education. The democratic influence in our universities manifested itself at the very founding of so aristocratic an institution as Harvard College. The uniform usage of the Old World has given the management of the universities into the hands of teachers. At Oxford and, in some measure, at Cambridge and Paris, the control had been divided, but it was only a division of functions between teachers. Harvard set up the lay board of control, representative of donors or of the State, and all American universities have followed it, voluntarily, but of practical necessity. It is not unlike the division between the public and the professional control that pervades our entire system of education. It has exerted many and mighty influences, and while the good results outweigh those not so good, it must be said that some are distinctly weakening.

It was supposed that this arrangement would assure the permanent democracy of the institutions. With the wealth and the social tendencies which have flown from the munificent support of states, and the monumental gifts from wealthy and large-hearted donors, it is doing more to make them autocratic on the basis of possessions and power than any scholastic exclusiveness could possibly have done.

Without saying that that in itself is necessarily a weakness, it has certainly resulted in some troubles that are manifest enough. For example, it has often weakened the support of the most scholarly teachers, and sometimes made it pretty nearly impossible to get rid of a teacher, even tho he be not worth the salt his physical system craves. If a teacher can play the demagog or has a friend in a meddlesome trustee, he is practically beyond the reach of scholarly discipline. Moreover, arbitrary annual tuition fees and fixt salaries for teachers, while not exclusively American, have had a development here far beyond that of other lands. The common usage in other universities has been to exact fees on the basis of courses, and to pay teachers on the basis of the number of students attracted by their work. The usage here is to charge an annual fee for whatever the student will take in a year, and to pay teachers an annual salary for whatever they do, whether for many or for few. Something is to be said for both plans, but the system of the Old World, whatever else may be said of it, puts a teacher to his utmost and provides an automatic way for eliminating a weak or an obsolete one, and the system of the New World certainly experiences a good deal of demoralization over the salaries and tenure of teachers. Between the board of trustees, the president, the rival claims of teachers, the feelings of students, the state of the treasury, and the outside influences that creep in, it is small wonder that salaries are not always regulated on the basis of scholastic merit, or that it is almost impossible to get rid of an instructor who has not committed a legal or a moral crime. And as crime is practically unknown among teachers the best often go unrewarded, and the rest reap the advantages of a system which has no automatic and no easy way

of discrimination upon the basis of merit. The result is a good many weak factors in our university faculties, with the prospect of a good many more, unless parents and students begin to discriminate sharply against institutions which do not cure the trouble. But all universities are popular, and popular discrimination seems pretty nearly impossible now.

Our democratic university government affords opportunities for scheming, and for successful appeals to flabby sentiment by members of faculties, which are impossible in the Old World. For example, wide open elective courses were sending us to an unthinkable situation. The difficulty had to be cured by reducing the number of electives and by requiring students to take certain courses. This has to be arranged by faculties, and creates the opportunity for requiring students to take the courses of certain teachers. That is an advantage to those teachers, and makes for log-rolling. It will be idle to say that log-rolling is impossible in a university. Of course, it is of the academic variety, and somewhat disguised, but there is hardly an American university that is more free from phases of it than the county courthouse which is a few miles away. Look at yesterday's or to-morrow's papers to find the man of academic degrees, who is long in his vocabulary and short in sense, if not in principle, who is dishonoring and degrading a noble institution in the sacred name of "academic freedom." These things seem to foreshadow the time when the compensation of university teachers will have to depend in some measure at least upon the demands for their work, or when they can be "resigned" without academic or public commotions which threaten administrations.

In accompaniment of all this is that passionate fondness of university teachers, as between themselves, and even before the public, for that irrelevant discussion which seems to destroy all sense of educational perspective. Doubtless there is psychological reason for it: very likely it is an expression of the inevitable reaction from the labors of the library, the lecture-room, and the laboratory. Whatever the cause, there is no lack of profusion about it. They will keep it going by the hour with apparently more pleasure than they can find in

any other pastime, unless they are menaced by the apparition of coming to an agreement. They remind one of Mrs. Kelly, a witty Irish dame, who was certainly advised of some of the social curves, when she said to her neighbor, "How are ye, Mrs. Mahar? Not because I care a hoot how ye are, but just to start the conversation."

In the freedom of the country, in the multiplicity of opinions and of things to be done, university men with mere training in theory and little or no practical experience have little hesitation in representing the universities. The university men best qualified to speak are least willing to do so, and those least qualified are quite willing to attract the public attention which does not discriminate. A young instructor in economics feels himself perfectly qualified to advise the national association of bankers or of manufacturers. It is done not in a personal, but in a representative capacity, and it accustoms the people to a great deal from the universities that does not inspire confidence or enlarge the respect that is worth having.

Again, universities, thru some of their colleges or departments, often multiply work unreasonably, with the result that they have more to do, have more students, and have claims for more money. Subjects that are not at all involved or obscure are given serious aspects and extended into many offerings with appalling titles, enveloped in a heavy atmosphere, and presented with a sublime seriousness, that seem to invest them with profound mystery, learning, and erudition. It is seemingly a natural outgrowth of our educational situation, and it seems impossible to prevent it. Possibly it would not be well to prevent it. There may in time be compensatory advantages about it, but if our universities are going to value a uniformly substantial character, exprest by their graduates and manifest to the public, there will surely be a reaction against it.

There is another side of the matter. Our universities have a trouble that is common in all American schools. They have at least to respond to the demands upon them. Some encourage demands that are neither educationally sound nor

practically wise, because the result will add to their bigness. In any event, those demands are for more than they can do thoroly well. The American people have less inertia and contentment than the peoples of Europe. Over there people stay where they were born, or move to America. Here everyone is always going somewhere in quest of riches, position, and titles. It has long been very natural to go to the schools, and it is particularly fashionable now to go to the universities. Each wants something when he gets there that few others want. Each expects the universities to respond to all his wants. All this enlarges the buildings and equipment astonishingly, and multiplies the teachers and the classes of teachers inordinately. And the teaching in the universities is not much measured, except by examination, which the teachers themselves set, hold, and rate. If we were to classify the teaching in America on the basis of pedagogical result, we would probably hold that the best teaching, the most severely judged teaching, the teaching which must be resultful, is by the women in the primary schools. That in the high schools is less severely judged, less responsible, more pretentious, and less exact. The teaching in the universities is hardly supervised at all; it explores involved subjects; it is a law and a judge unto itself; the law of it is very confused; the judge is in little danger of a recall; and, withal, he is very confident in his judgments of his work. With the growth in the number of teachers, with the youth and inexperience that have to be accepted, with the demoralization of riches, with the strife for more pay and higher position, with all the freedom and independence, with the opportunities for manipulation, and with the weight of democratic or social influence, as against purely scholastic merit, it is not surprizing if faculties have been weakened and the standards materially affected.

If this is at all true of the faculties, it must be expected to affect the student bodies very materially—and it does. Oh, there are serious and scholarly teachers by the thousands, and there are earnest students by the hundreds of thousands, but it can hardly be denied that because of their newness,

their bigness, their independence thru wealth, and their democracy, our American universities, speaking generally, are lacking in the exactness of the best scholarship, and in the open-mindedness and intensiveness with which sound scholarship pursues the truth. Examples of this lack of exactness and seriousness are common enough, indeed so common that we hardly think of them. Candidates for admission are not turned away because unprepared: they are "conditioned" or made "specials," or sent to some nearby "academic hospital," where they will be doctored up and saved to the institution. Whatever else happens, no student who will add one cubit, not to the stature, but to the girth of a university, must be lost. The term "research" is used in our universities with a flippancy and a presumption that are often absurd. The elective system will probably justify itself if its worst evils can be cured, but it can hardly be said that it has not contributed to this lack of exactness and of intensiveness that we are thinking about. If it has enabled students to get what they want without taking what they do not want, it has also offered electives to students who, tho honest enough, are unable to elect intelligently, and it provides "snaps" for those who can not get thru without them. To say the very least, it creates unbalanced and unscholarly foundations for academic degrees. It has, therefore, demoralized standards, and made university honors bearing common titles of wholly different values; it is to be feared that it has demoralized the public opinion of the country, and created the common thought that no one with either wits or money need have much difficulty about getting a degree.

An American university is likely to become a little cosmopolitan world by itself, and sometimes not a little one. There is something about it to attract all classes. With fine buildings and grounds and equipment; with lectures and concerts and plays; with fraternities and sororities and clubs; with games and crowds and colors and cheers; with the assurance that any one may come in and get "learning" by mixing in the throng; with all the lies the old grads tell about the things they never did; and, moreover, with the threat of op-

portunity forever lost, and ambition eternally defeated if one travels some other road, is it any wonder that the universities attract all kinds of students, and not a few who are "students" in nothing but name?

There are some universities where the teachers are very exacting upon students, and in some universities some students are very exacting upon teachers. The demands of students constitute the life blood of universities. That university is fortunate where either is the case. But there are enough universities where neither is the case. The number of students going to our universities who might better never go at all, the mixt elements in the student bodies, the quantity of unprepared materials without serious purpose, necessarily weaken the structure of the organization, and demoralize its work. It is well to go to Europe to see what they are doing there, tho no student need go to Europe to find deeper learning or better teaching than in America. But so long as the teachers are weighted by stupid and indifferent students, and so long as the internal organization and the environing influences fail to put a premium upon the best scholarship and the best teaching, and so long as much courage is required for the ruthless judgment of students' work, there will be a structural weakness in American universities.

Now let us change the point of view, and think of the attitudes of our universities towards the common life of the country. And first towards the common schools, that overwhelming factor in the common life. Realizing how undesirable it is to admit so many conditioned and special students, they would make all other schools preparatory to themselves and assume to dominate the middle and lower school systems to which they are otherwise in none too close relations. They tell the high schools just what they must do and leave undone to prepare for college, and when the lower schools try it, they say, with an arrogance that paralyzes credulity, that their freshmen have been so badly taught that the college must take several months to clear out their heads before they can really commence the study of the subject at all. Gracious Heavens, if the high schools can not be saved

from this, let them be saved from the burden of trying to prepare for college altogether. Anyway, why do not the universities either abolish requirements for admission, or enforce them? Of course, the high schools have the same ambition for "bigness" that the universities have, but why not have it settled what classes of work the high schools can do thoroly well, and discontinue the expensive farce of their trying to do more? Or why do not the universities predicate admission requirements upon the purpose and the power to do their work rather than upon subjects and counts? The western state universities have a better plan than our eastern endowed universities about this. At least it does away with the discussion that occupies most of the time in the academic conventions of the East. They inspect schools and admit on diplomas; if the students can not do their work, the semester examinations exclude them; they have had their chance, and can not complain. The western students say that it is easy to get in, but hard to stay in a western university, and that it is a little harder to get in an eastern university, but that it is no task to stay in, and that one who pays the tuition long enough, will surely get a degree. Why not have a better plan about this matter here?

But the universities not only criticize the lower schools about the treatment of pupils who are to become college students; they are now actually beginning to criticize them on the score of their treatment of pupils who are not going to college, and censure them for making it possible that any shall not go to college: indeed, some of them separate the world into two classes; the *saved,* who have read Cæsar, Cicero, Vergil, and Homer, and become enamored of Helen and Cleopatra; and the *lost,* who have taken all this only about as seriously as they do the rest of the literature and history of the world, and have been infected with the heresy that the progress of science, the accumulations of experience, and the advance in philosophy and literature, have proved as much right as have Roman grammar, oratory, and history to be inscribed on the tables of knowledge and of law.

A year ago several of the college or university presidents

in this state went so far as to "say things" publicly against vocational as compared with classical education. One would hardly expect them to do that at any time, but, above all, at the Christmas time. It was clearly caused by the force of our recent movement for training workmen. And a few months ago my friend, Dean West of Princeton, published a paper entitled "Vocational training—a menace to the universities." Hard experience may lead one to suspect that something of all this ought to be overlookt because of the necessities of speech-making. It makes much difference whether one has to say something or really has something to say. It may be that, like Mrs. Kelly, these university men feel the necessity of saying things merely "to keep up the conversation." If they really mean it, then one must ask, do they think the country exists for the universities or the universities for the country? Is there any danger of too few educated unproductives or of too few candidates for law and medicine, and of too many trained in skill of hand and in the application of science to industries? Is there any sense in resenting and resisting the making of men and women happier and better thru improving the work of their hands, when the country needs their better work, and much more of it, very imperatively? Is it wise for a university in an environment that is almost exclusively industrial to preach a philosophy that is worn out anyway, and, at the best, can only unsettle a faith that is both wise and good, and make many misfits in the adjustments of people to work? No one would keep any student from studying history and literature and philosophy and professional technique as exclusively as he pleases. No one entertains any doubts of his very vital and very large importance in the world, or denies his claim to the fullest measure of support. On the other hand, a university that has conceived the idea that cultural and professional learning are all that are entitled to a full measure of support; that its mission is to settle the destinies of boys and girls instead of aiding them to do it intelligently and freely for themselves; or that assumes that all learning, the fullest happiness, or the safest citizenship and the strength of the Republic, are

all within the limitations of classical and professional culture, is certain to be menaced by the advancing waves of common intelligence even to the point where the honored lights of a hundred or a thousand years must be submerged. It is to be hoped that the weaknesses which are inevitable in new universities in such a new world, will not be enlarged by any serious support of such a fallacy as this.

Time enough must be reserved for a word about university morals. Probably there is no ground for criticizing the good purpose of university management in America, but it is apparent, I think, that very generally the governments of the universities are showing a woful lack either of strength or of courage in dealing with the larger bodies of students and the increasing swiftness of student community life. I do not believe that more go to the bad in the universities than would if they did not attend the universities. It may well be doubted whether there is more evil in college life than in social life in general. Even so, this is not enough. Students have no business in universities at all if they are not intent upon going to the good rather than half-way willing to go to the bad. University life is an association of people who proclaim scholarly aspiration and moral purpose; it ought to endure on no other basis; it is bound to be an example of decent living, or be content to debase public opinion and degrade the educational system of which it counts itself the head. The society is a selected one; its members are not chosen on the basis of either poverty or riches, nor on that of charity or social independence; but on the ground of something accomplished, of pretended intellectual ambition, and presumed moral purpose. In these regards it must be held to be above the average in the State; and in government and conduct it must of necessity be either a good example to the State or a deplorably bad one.

There are not many of us who would go back to the severe biblical interpretations or the intolerable religious philosophy of our sainted fathers and mothers. Neither would we return to the religious theory and practise, to the Christian exclusiveness and the innumerable rules of conduct, of our early Amer-

ican colleges. But we are not going to forget the history of American higher education and of America itself. We know what our present estate has grown out of, and we know something of the vital basis upon which it may continue to enlarge. A college or university without religious foundations may exist in other countries, but one must have them before it can be an American college or university at all. And it must square its life, not some of its life, not its average life, but all of its life, with the fundamentals of its history and its being, or it must accept responsibility for inconsistencies which must necessarily hinder all the purposes which it was set up to promote, and be more than likely in the end to destroy its own life.

We accept all the joys and pleasures, even all the harmless pranks, raillery, and foolishness, of university life; we believe in manly and womanly sport, and are glad to make concessions to it; we will not draw the line too hard against the more luxurious surroundings of modern life and the human frailties that give way to them. Some of us would dislike to join Chancellor Day's society, which would send us out to the woodshed if we wanted to smoke. But when it comes to the brutal vices,—to drunkenness, licentiousness, gambling, to violating the rights of person and property, to maltreating other students, to taking possession of theaters and cars, to defying the university government, and also the public power of police,—there can be no latitude for discretion about what is to be done, and no time for procrastination or hesitation. And it is simple enough. Not many rules are necessary. Demand that the police proceed against students just as they do against violators of the peace and breakers of the law of any other class. Assume that all in a university are fit associates in a life which regulates its conduct by moral principle, and is bent upon a serious purpose: when it is discovered that one is not, send him out of the inclosure at once and for good. There will be weeping and wailing, pining and pleading, but let it go. There will not have to be so much farther on, because there will not be the further excesses which grow out of excesses unpunished; the good ship will have shown that she

can stand heavy weather; and the captain will be honored for having kept her true upon her great course.

Who can cure these weaknesses? The common sentiment of the country can hardly be expected to do it. That sentiment can not be united, it does not perceive the difficulties, and it hardly has the means. The constituencies of the different institutions ought to force it, but such constituencies are accustomed to follow leaders. It is rather too much to expect of the lay boards of trustees. They expect the educational administrations to deal with such matters. It is up to the presidents. They have the power to do it, if it can be done at all. Under our university system, the responsibility and the right to lead are theirs. It is a matter of their standards, strength, and courage.

If these structural weaknesses in American universities are cured, it will be upon the initiative and under the leadership of their presidents. The office of president, as we know its attributes, is peculiar to American universities; like the lay board of trustees, it is unknown in other universities. It has grown out of the very necessities of our half-popular and half-professional, half-lay and half-scholastic, scheme of university government. It is not only the executive force, it is also the conserving, organizing, directive force in administration. It is yet more than that: it is the power that gathers and harmonizes the forces which enter into the evolution of a great university, and it is the power which can enable education to resist the weaknesses and the vagaries inevitably associated with compounding millions of widely different people into a new world power. It is, apparently, the only power in the forces that are making our universities, and in the plan of our university government, that can do it. This is depreciating none of the other forces. Money, altruistic spirit, reverence for God, and love of learning are great forces. A college or a department may be made great by a man who has the head, the training, and the heart of a scholar, and who is given opportunity, and provided with means. But no university in America has ever developed strong colleges and departments, and brought each to support all the rest, and ef-

fected a comprehensive whole which has quickened the intellectual and moral life of the nation, without having had at least one great president, and without having protected him from the vagaries and jealousies of individuals for a considerable time. And if this office is the power that has made many of our universities big, and some of them great, we must look to it, and give to it the men and the support and the trend, which will enable it to make more of them great, and such as are great greater still.

Our theme has not been altogether agreeable. It is to be regretted that it has not been dealt with by one who could make its importance seem more urgent. The weaknesses of the universities are the weaknesses of the nation. We never needed great universities more than we do now. It may be that we are entering as critical a period as we have ever had in the history of the Republic. All government is on trial. Democratic government can not escape further tests of its strength and its beneficence. The bigness of the nation, and the heterogeneous character of the people; the great business of developing and conserving our vast physical and political estates; the care of all the wicked, the degenerate, and the unfortunate; the indifference, or, at least, the helplessness, about choosing competent representative assemblies, and the recklessness with which legislation is matured; and the haste and gayety with which millions, if not scores of millions, seem ready to cast away inbred religious beliefs of the nation, and the fundamental political principles of the government; all point to a period hardly less critical than that period which went just before the making of the Constitution, and that other which went just before the Civil War. Of course, we are all optimists, but we are barred from being very stupid optimists; we are not ignorant of the low points as well as of the high points of human nature, and we have often seen the slants and curves and vacant spaces on the great diagram of human history.

> "How the races troop over the stage in endless procession!
> Persian and Arab and Greek and Hun and Roman and Saxon
> Master the world in turn and then disappear in the darkness."

We think we know that this nation will endure; the nations that have perished have neither had our freedom nor been guided by our lights. But we know, too, or ought to know, that the nation will endure only by the continuing triumph of the forces of intelligence and righteousness over the forces of ignorance and vice: only by men and parties letting go of issues that are obsolete, and burying prejudices that are outworn, and by making moral, scientific, patriotic alignment upon the vital questions of a new situation and a new day. It will have to come thru the consolidation of the best thinking and the great-heartedness of the schools and the churches. In very large measure it will have to come thru the doings and the teachings of universities that grow out of the genius of the country, and are able to lead it; universities that are light-hearted, confident, sincere; that are sane enough to keep in the middle of the road, scientific enough to unlock new truth, and forceful enough to repel error; that are at once unselfish, tolerant, scholarly, democratic, patriotic, and fearless American universities.

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II

LATIN IN THE COLLEGE COURSE[1]

I am moved at the outset to make a confession. Nowadays, when I read or hear of a new scheme designed to better the methods and manners of us who are teachers of the classics, I am conscious almost always of a mixture of sensations. I can detect, for example, a mad impulse to protest against the effrontery of him or of her who, having the heart to believe that there are new tidings to be brought, bustles with ardent words into the temple of my academic calm, and attempts to tumble my idols from their pedestals. Happily these wild promptings to revolt soon subside. Only once, I think, have I been tempted to reprisals in a pedagogical debate. In the rebuttal my opponent accused me, thru half a column, of having misunderstood his English. I learned that a rhetorical question should never be taken seriously, and at once retired, properly humbled, from the field. "Finis sequendi satietas fuit."

I am conscious, likewise, of the monstrous presence of skepticism. An inner voice keeps posing to Archimedes or Archimedea, as the case may be, rasping questions such as: "You say you have found it! Does your device work? Are you telling us what you have done with it in a classroom, or what you would like to do?" Almost invariably the demon adds in a whisper, intended for my ear only: "You tried something very like that years ago, and abandoned it as useless." What an imp of perversity! It is doubtless true that he finds his favored abode only in the hearts of old-fogy professors, *senes severiores* who are always thorns in the flesh of generous youth.

[1] Earlier articles in this series on college subjects appeared in the EDUCATIONAL REVIEW for April, May, September, October, November, December, 1910, March, May, and November, 1911.

In the end, these wicked thoughts vanish, and are succeeded by a mood of tolerant, if wearied, acquiescence. By the time Archimedes has completed the exposition of his heurema, and is bowling along thru his hortatory finale, I am often almost converted and ready to try the scheme, or "try it again"—the egotistic demon seldom submits entirely to the gag.

These sentiments are highly reprehensible, of course, and will sound to the serious-minded like sheer impiety. In justification of such unprofessional lapses there is little to be said. In saner moments one must realize that the glut on the market of new, patent appliances for improving our pedagogical machinery, is a healthy sign. It argues at least an absence of that complacent acceptance of prevalent methods which is a bar to progress. Classical education has been for some years, and still is, I fear, on trial. Small wonder, therefore, when the value of our output is so constantly questioned, and occasionally is flatly denied, that we should react so readily to the necessity, thus forced upon us, of taking stock of our wares, and should be continually overhauling our plant with a view to increasing its efficiency. Then, too, each new lustrum of teachers must work out its own salvation. It is a help to arise in meeting, relate one's experience, and rhapsodize a bit over one's aspirations. The kindly auditor will hearken to one's platitudes with a "favete linguis" for the good of the cause. A patient editor, perhaps, will give leave to print.

There are, I take it, two primary objects which are the goals of effort in the study of a language. We have first to establish a mastery over the tongue itself as a medium of the expression of thought, to force the printed page to reveal its secrets. This task accomplished, the next step must be the appreciation and the evaluation of the national life, ancient or modern, which that page chronicles, and which, philosophically regarded, can never fail in the nature of the case to be instructive. For, even tho we may be conscious of a dearth of positive suggestion to project upon our own age or civilization, we learn by contrast and by difference as truly as we do by similarity and by analogy. On this

common ground meet all the languages which may profitably engage the attention of any man of the present generation who deems nothing human foreign to him. We have come to know that these aims are not monopolized by the classic languages so-called, but that instruction in the modern languages has precisely the same objective points. That old-time notion that the prime object of the study of modern languages was to secure the gift of tongues possest by the Continental courier or to acquire the ability to digest the contents of a foreign trade journal, has wellnigh vanished. Even in the popular mind the professor of romance languages has gradually differentiated himself from that fine figure, the French *maître d'armes,* to whom so frequently our fathers looked for instruction in Gallic courtesy and conversation alike. In the realization of their essential kinship of purpose the ancients and the moderns may, as it were, lie down together. Differences of opinion as to disciplinary and intellectual values there may be, but not as to objects of endeavor in the two fields.

Now, tho it requires no acute analysis to figure to ourselves the existence of these essential aims in the study of a language, it is not so easy to determine precisely the relation in which they stand to each other, or should stand, in the practical work of teaching. Clearly, the study of the language proper is the requisite preliminary in the process. Only knowledge of the letter can render possible an appreciation of the spirit. This is axiomatic. Yet there remain to be decided the questions: When may instruction in the broader and more universal aspects of the language begin to supersede training in the rudiments? Should the divorce, if it be declared, be partial or absolute? These are phases of the problem which we teachers of the classics find especially perplexing, confronted, as we are, by an impatient public, which urges upon us the necessity of quick results, and is not entirely sympathetic with the plea that we are dealing with languages, the intrinsic difficulty of which forces us to extend the preliminary process.

The cry now is, "Teach the classics as literature." Some-

times I think we do protest too much. Forty years ago, when other ideals of instruction held sway, there was an issue. Then anything that was said by way of advocating the necessity of emphasizing the literary side in teaching Latin and Greek, had value as a corrective. That issue is now dead, so that, in my opinion, it is a waste of words to preach a doctrine universally espoused. At the present time, when two or three who profess the ancient languages and literatures are gathered together, pessimistic remarks may be made concerning the success which attends efforts to instil into the mind of the average undergraduate literary feeling for the classics. That the attempt should be made, however, is taken for granted. There is no danger that the college instructor, however technical his training or scientific his personal interests, will see to it that his students can decline *ὕβρις* like a boy of Halicarnassus, but leave them in the dark as to how the grim conception of the foolish pride of men and the pursuing *φθόνος* of the jealous god color the narrative of Herodotus; that the class in Livy will hear only of *cum inversum* and the subjunctive of iteration, nothing about the "pictured page" with its battle scene, the third-century generals spouting the conventional *παρακλητικός* of the Augustan rhetorical schools.

The belief that at all hazards the literary side of the classics should be emphasized in teaching, is by no means confined to the higher institutions. The preparatory teachers are quite as alive to the prevalent demand as are their brethren in the colleges. Read the symposium on the subject in a recent number of *The classical journal* (October, 1911). The claim of the schoolmen to share responsibility in this direction will come as a shock to many college professors. As a class, I fear we are given to theorizing about the problems of secondary education, as if they lay apart from the orbit in which we revolve. We are prone to remind the teacher in the preparatory school that he is to concern himself solely with teaching the boy or the girl to read Latin. This reminder is often couched in rather patronizing phrases, which carry the implication: "Leave the rest to us; it is *our* business to teach

the youth to view their Latin as a branch of world literature, and to induct them into the modes of thought and the ways of life of the race whose vehicle of expression Latin was."

Personally I do not sympathize with the attitude of mind which posits a barrier-line, on one side of which is the preparatory teacher trying to do divers things, on the other side the college instructor trying to do entirely different things. That there comes to be a shift in ideals and methods of instruction is, of course, patent. It is true that the brunt of interpreting the ancient literatures must be borne by the members of the classical faculties of our colleges. Yet there should be no severely horizontal line of cleavage between rudimentary and advanced work. The college course, if I may use an overworked trope, should be pictured as adding wings and ells and points of outlook to an edifice which has already been raised above the ground, rather than as erecting the framework of a structure whose foundations only are complete. Always the caliber of the teacher and the receptivity of the individual student must be the determining factors. The question can not be answered in terms of school grade or college year. Hence, if a schoolmaster is able to hew away the underbrush of forms and syntax so completely as to secure for his pupils glimpses into the vistas beyond, he should not be hampered by any rigid, pedagogical theory as to the proper limits of his activities. The more he can succeed in causing his pupils to view the classics as masterpieces on which time has set the stamp of approval, in reconstructing mythological, social, and political background, the better; especially for that large number whose study of Latin ends with the secondary school.

There is little danger that the teacher in the preparatory school will lose his sense of proportion in this regard. He has much to do before even approximate mastery of the bare essentials of grammar can be achieved by his pupils. The time seems all too short. Furthermore, he is conscious, often to his avowed displeasure, of the downward thrust from the colleges, with their insistence on very tangible acquisitions in

the way of ground covered and acquaintance with the minutiæ of grammar.

In the colleges there is also a pressure to which the teacher is subject, but which makes in an opposite direction. We are, comparatively speaking, freed from the necessity of utilizing Latin as a discipline. At the same time, we are called upon to show what appeal the study can make to be accorded a place among the other *artes liberales* of the present day, to demonstrate its points of contact with the latter-day world, to vindicate it against the keen competition afforded by other humanistic subjects. Our colleagues are outspoken in this demand. The undergraduate registers his sentiments in tacit but unmistakable fashion, by neglect of our elective courses, or by attendance on them. Being human, we respond with a will and endeavor strenuously to make our courses "interesting." We call into requisition pictorial atlas and *Denkmaeler,* we lecture on ancient literature, history, and life. We are eager, before all else, to cover ground in reading, and to give our students an idea of an author as a whole. With these aims before us, we send the student to metrical versions and classical renditions in English—at least, some of us do. Tho we may not condone the use of translations in the actual work of preparing a lesson, there are not many of us who take positive steps to discourage recourse to them.

Now, I must disclaim any desire to rehabilitate the gerund-grinder of yore, whose methods came near to reducing the classics to an arid detritus fit only for the rubbish-heap, to which, at times, they have seemed parlously near being consigned. Our college classrooms are well rid of that type of pedagog to which grammar was a cult, and parsing the *Ultima Thule* of accomplishment. In parenthesis, may I say that I sometimes doubt whether the type was as predominant as we are often led to believe? Although examples were numerous enough to set a universal stigma on the methods of teaching which obtained during the last generation, there were notable exceptions. The memory of these is to this day kept green by the homage of their former students, and lives in the academic tradition of the institutions which they adorned. I do

not, as I have said, wish to pose as a reactionary; neither do I regard as exhibitions of mistaken zeal the efforts that we make to teach our students to read for what the author has to tell, to make the Roman man of Republic or Empire live before their eye. The point which I wish to emphasize, and which, I believe, the trend of teaching makes it essential to repeat rather frequently at the present time, is that this work must not be done, even in college, at the sacrifice of power over the language itself.

How many times have we heard in the last decade and a half that our college matriculant has not the equipment of the *Abiturient* of the gymnasium or of the graduate of the lycée who come to the university prepared for something different in *Vorlesung* and *Conférence* from that to which they have been accustomed. A former colleague of mine, a good teacher and a wise man, once said: "Treat the under-classman as a man—but remember that he is still a boy." Certain it is that the American youth, with the assumption of the academic *toga virilis,* does not forever put away childish things. The mental potentialities and attitudes of the freshman or the sophomore have not altered so drastically as he is likely to think, and as the tactful teacher will keep up the illusion of thinking. This being the case, it follows that only gradual change in the things on which stress is laid, or in the manner of presentation, is feasible. The development of increased efficiency in reading must for a time continue to be the primary aim. Even in advanced courses, where *Kulturgeschichte* and appreciation may justly claim greater attention, the teacher must see to it that the student's grip on the original be not allowed to relax. It is a lamentable but by no means unknown condition of affairs for a student in his last year in college to feel that he knows less about the Latin language than he did as a freshman. Personal experience has proved to my own satisfaction that, in the eyes of the student who is in earnest, the sense of mastery over any foreign language is the chief reward; thus, all that he may have learned about Roman history, literature, and view of life will not outweigh in his own mind the consciousness that he can

not, for example, manage subjunctive constructions with old-time certainty.

Above all, it must be borne in mind that there is no short-cut to literary appreciation in the true sense of the term. I have no faith in the development of that faculty in the immature student by the use of such direct methods as the set lecture or as reading an author in bulk by means of translations. We are afflicted with no more pernicious fallacy than lies in the assumption that, because the student's acquaintance with many authors must be limited to specimens of the text, small in comparison with their total work, he is, perforce, denied the power to form a working idea of what a given author stands for, what his literary purpose was and how far he has achieved it, or to picture the environment in which the author worked, and its effect on his writings. I should not, of course, assert that the complete understanding of any author, ancient or modern, that the critical scholar wishes to obtain, can be based on anything less than a comprehensive study of the *opera omnia* in the language in which they are written. My protest is directed against the opinion which is heard frequently exprest, particularly by laymen, to the effect that appreciation is stifled by our present methods, and can be fostered only by reading an author in large quantities. This notion has exerted considerable influence on the courses in classics in the higher institutions of the country. For, since this extensive reading is practically impossible except by recourse to English versions, translations are called in to supplement the ground covered in the original. I say "supplement," for it is to this phase of the question that I must logically confine myself. In a paper which has to do with the teaching of *Latin,* it would be paradoxical, indeed, to waste the precious time of the reader by embarking on a discussion of the value of the study of Latin authors in translation solely. Such courses are not courses in Latin. If they belong anywhere in the curriculum of the serious student, they should find their place in the domain of comparative literature or literary esthetics, not in the program of the undergraduate course in Latin.

We all know the story, apocryphal, no doubt, but none the less instructive, of the violinist of mediocre talent, whose master made him a great virtuoso by compelling him to practise one piece for three years. Thus, given a teacher of knowledge and perception, and a pupil who has acquired a fair mastery over the language proper—two necessary conditions—power to visualize an author and to grasp the salient characteristics of his manner, can be successfully developed as a by-product in connection with the intensive study of a comparatively small portion of his work. The very processes demanded by the act of translation, such as looking each sentence squarely in the eye, noting its connection with its neighbors, brooding over the meaning of the context, operations which we perform instinctively, without stopping to analyze them, are the steps which make for the intimate understanding of what an author is, and how his mind worked. These are at least two of the integral elements of appreciation. If one can secure these, one can afford to do without much of *what* the author wrote, which is an entirely different thing.

For the sake of making our contention clear by a concrete example, let us ask ourselves what we should wish a student who aspires to common culture and the possession of the "traveled mind," but who does not care to qualify as a specialist in Latin, to carry away from a course in Tacitus. We should hope to picture the gloomy visage with which Tacitus viewed the "world of men" about him, and how he wrote about them and their motives with the pen of the stern censor and the acrid satirist. We should try to fix in the student's memory that hatred of absolutism which led the historian to a partizan's condemnation of those emperors who exemplified this ideal of government; that scant respect for the Stoic recalcitrants in the Senate who suffered martyrdom for conscience' sake; the implied justification of those who, as did he, maintained a "stand-pat" attitude; his conviction that civilization spelled degeneration, and that national decadence followed the Roman eagles; his lack of sympathy with philosophical speculation; his hesitant position in regard to the question of immortality. We should wish the student to be

imprest with the features of style that make Tacitus Tacitus, such as his constantly recurring ellipses, his deliberate choice of the novel in syntax and phraseology, the taste for inconcinnity that moved him to couple equivalent constructions rather than identical; the terse, pregnant sentences in which he expresses in a few words ideas, the adequate rendition of which into English costs many words; the epigram with which he clinches the thought of a chapter in the closing sentence. No one, I fancy, would deny that these are most of the essential features of the make-up of Tacitus, the man, and Tacitus, the craftsman, which we should wish the future American citizen to keep in mind after the doctrine of the "suppression of the apodosis" shall have past into the limbo of things forgotten. There is not one of them that a careful study of the *Agricola* alone will not bring home to the average sophomore.

In closing, I can not deny myself the luxury of some words on a topic which is naturally suggested by the conservative doctrine and the *multum in parvo* methods which I have been advocating. Altho the subject is old, it is one on which I cheerfully lay myself liable to being deemed a fanatic, believing, as I do, that in practical importance it transcends all other influences which bear on the efficiency of Latin instruction in the colleges. I refer to the use of translations, an evil which, as far as my observation goes, is chronic in the colleges and goes far toward making courses in classics a mock among the undergraduates. Some investigation of conditions has shown that it is in the colleges, the very places where classical salvation ought to be achieved, that the average youth becomes in this respect the greatest sinner. The preparatory teachers do their part manfully. Their results seem to be obtained more by fear than by love—at least, this is the confession of not a few undergraduates: "I simply didn't dare use a translation in X's class." (Note the past tense.) Still, in the preparatory schools the foe is to a considerable extent kept in check. In the comparative absence of restraint which obtains in college it is, I say it deliberately, the exceptional youth who does not make more or less use of lit-

eral translations in the preparation of lessons—and less almost invariably ends in more.

There are various causes to which this lamentable state of things is due. Force of example plays a part. The incoming freshman speedily discovers that it is the mode to use translations—one of the good old customs of college life, as it were. So, when the accommodating salesman of whom he buys his textbook takes it for granted, as the campus vernacular hath it, that he " wants the trot," and stands ready to furnish it, the freshman purchases the *vade mecum* as a matter of course. The absorbing extra-curriculum interests which move the undergraduate to begrudge the time necessary to get a lesson with the help of the lexicon alone, increase the temptation to resort to illegitimate aids. There is doubtless some force in another excuse which undergraduates offer in moments of frankness, that lessons in college are long and the textbooks do not contain vocabularies; the lexicon is bulky and troublesome to use, the translation is brief and convenient. Then I can vouch personally for the fact that the knowledge that in advanced courses collateral use of the metrical version and the free translation in prose is recommended, exerts a demoralizing effect upon those in attendance on lower courses. The inference is drawn that the classical faculty has no quarrel with the use of translations. A ridiculous *propter hoc,* to be sure, but the freshman or the sophomore who is in quest of the path of least resistance, is not given to drawing fine distinctions.

It would be grossly unfair, however, to hold the conditions of college life, and a certain absence of stern stuff in the make-up of the undergraduates, alone responsible. No small part of the blame must be laid at the door of the man on the rostrum. It is easy for a good teacher to fall into a *laissez faire* attitude, or even into a half-humorous acquiescence with what he knows in his heart is a serious evil and a standing menace to solid attainment in his subject. The consciousness that he is laying emphasis on the " literary side " and imparting a flavor of culture to his courses will always offer him consolation by reminding him that he is in harmony with present ideals, as I

have sketched them. But if at the same time he is permitting his students to undermine their scholarship, and to see their Latin sentences each day thru a glass more darkly, he is teaching the language under false pretenses. It would be better for him frankly to give his course *Anglicé* than to go thru the farce of reading in the original with students who, he knows, are preparing their lessons with a text *dextrâ* and a translation *sinistrâ,* and who know that he knows. At least, he would do away with the mutual dissimulation, which is now the rule, and which would be humorous if it were not so pathetic.

I have, therefore, no hesitation in dignifying as an aim of college teaching in Latin worthy of the serious attention of all teachers who are jealous of the good name of their subject as an effective means of training and culture, the stern restriction of the use of translations. My own prejudices interpret restriction as abolition in the case of freshmen and sophomores—perhaps, as I have said, a fanatic's point of view. Theoretically, something can be said to justify recourse to a good translation merely as a means of checking a lesson which has already been prepared with the lexicon. In practise, however, the normal results of this method constitute the strongest argument against it. Even the conscientious student finds that, tho the spirit is willing, the flesh is weak. Altho at first he may have every intention of keeping the translation in control, he almost invariably ends by being controlled by the translation.

I shall not venture to dictate a universal code of tactics by which this adversary may be routed. Each teacher must do the work in the way best suited to local conditions, and to his own method and personality. My own feeling is that measures of open coercion are not very effective. When there is talk of the curtailment of long-standing prerogative, the present generation of undergraduates are given to standing on their rights as men and brothers. Nor are they, it must be confest, especially receptive to homilies based on any ethical aspect of the question. If the reader will pardon a further lapse into the egoistic vein into which one falls too easily in a

discussion of this sort, I should like to describe the only device by which I have obtained satisfactory results. I am shamefully aware that it savors of Machiavellianism, in that it makes a show of permitting a class to be the arbiter of its own destinies, and yet is not free from a certain veiled compulsion. The scheme may not have even the merit of newness; however, here it is. A class is offered a logical option as follows: 1. It will be assumed that translations will be used, the lessons will be lengthened accordingly, and treated, not primarily as exercises in Latin, but as studies in appreciation, history, and the like. Marks will not take cognizance of ability displayed in the translation of the daily lesson, because the student will not be presenting his own ideas of the proper interpretation of the Latin, but those of the author of the translation which he is using. Sight tests and the final examination will obviously form the only reliable means by which the teacher can discover how much a student really knows about Latin. 2. The lessons will be prepared with the aid of the notes and the lexicon only, and their extent will be based on a fair average of performance in a reasonable period of study. They will be lengthened only to keep pace with the student's power of accomplishment. Sight tests will be resorted to primarily as an index to the student of increased efficiency. Naturally, the daily recitation will be a trustworthy, hence the important, basis for marking. After a frank conference along these lines, each member of the class is asked to submit at the next class-hour a statement, written but unsigned, of his preference. Only in case the choice is unanimous is the second method adopted, since it is essential for the sake of fairness that the members of the class do their work in the same way. It is then taken for granted that the class is in honor bound to abide by its choice. Never yet has a class failed to respond satisfactorily, nor, I am optimistic enough to believe, to keep its word. Doubtless the class realizes that in any case the teacher has an unrighteous advantage. However, this is an aspect of the situation to which neither class nor teacher refers, and is not the determining factor in the choice. A class working in this way at once

develops a lively interest in its own progress which furnishes a new impetus. Those who have been devotees of the translation discover a joy in the sense of returning power over the language. The potential backslider is kept on the up-grade by public opinion. In most cases the American undergraduate cherishes a sentiment in favor of methods of work that bring appreciable results. This sentiment, to be sure, is often, with a zeal worthy of a better cause, kept a profound secret from his teachers, but when it is evoked by a candid appeal, it becomes a force.

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III

RECENT ACHIEVEMENTS AND PROBLEMS OF CHEMISTRY [1]

More than any period of the past, our age exhibits a tendency in all fields of knowledge critically to test fundamental concepts, and when necessary, to institute far-reaching changes. This holds true for the natural sciences. Thru the aid of modern methods of observation the limits of the practical knowledge of the last century have been extended in an extraordinary degree, and in the light of new discoveries, the older theories have in many cases proved too narrow. The very foundations of our knowledge appear to a certain degree susceptible of modification.

So progress in physics has forced us to views which are inconsistent with the older systems of mechanics, altho these appeared impregnable to such thinkers as Hermann von Helmholz, Heinrich Hertz, and Lord Kelvin.

Such is likewise the case with the chemical elements. The discovery of radium and like substances has forced us to the conclusion that the chemical elements are not unchangeable, and hence that their atoms are not indivisible.

The changes in biology are even more marked. Comparative anatomy, animal and plant physiology, the theory of evolution, microbiology, and almost all branches of medicine are making swift progress in experimental research involving as swift alterations in their theories. Even the semi-historical natural sciences—geology, paleontology, anthropology, and the ancient and honorable science of astronomy—all take part in the onward march.

[1] A lecture delivered in the presence of His Majesty the German Emperor at the founding of the Kaiser Wilhelm Society for the Promotion of Science on January 11, 1911, at the Ministry of Education, Berlin. Reprinted from *Internationale Wochenschrift,* February 4, 1911, and translated from the German by Marston L. Hamlin of Columbia University.

In such an age of change is founded the Kaiser William Society for the Promotion of Science, whose first task is to be the erection and maintenance of research institutes.

That we scientists greet with joy the appearance of such a unique organization is self-evident, and I count it a peculiar honor to be permitted to be the first to express our gratitude for its institution.

No one can maintain that until now experimental research in Germany has been a Cinderella. A review of the history of the sciences in the nineteenth century teaches the contrary. It shows a long line of brilliant scientific discoveries made in our land. The trades and industries, too, that are so closely connected with the sciences, such as chemical industries, electrical and mechanical engineering, metallurgy, the brewing industry, and last but not least, agriculture, have developed to such an extent with us as to become objects of envy to other nations.

If we are to choose an external gage of success in scientific research, the awarding of the Nobel prizes may well serve our purpose; for these are given by entirely independent corporations in Sweden.

Four weeks ago the Nobel prize for chemistry was awarded for the sixth time to a German; we have received sixty per cent. of all the Nobel prizes for chemistry hitherto awarded. In the same period German physicists were awarded two and a half and German physicians three and a half prizes. For the other branches of science Dr. Alfred Nobel has unfortunately made no provision.

But the investigations rewarded by these prizes belong for the most part to the nineteenth century. Since that time the conditions have changed somewhat. It is well known that most of the German investigators are at the same time teachers. In our universities and technical schools a system of education has developed in the last decade which gives to every student a thoro grounding in experimental methods, and which supplies our industries with a host of well-trained investigators. But such a form of instruction misuses the teachers to a great degree, at any rate to a much greater degree than is com-

patible with a productive activity on their part in scientific investigations.

In the modern university laboratory a routine rules that is comparable with that in an average factory or mercantile concern, and the instructors lose all too easily that tranquillity of mind and broad outlook on the great problems of research in the grueling responsibilities of the day's work. This danger is felt most keenly by teachers of chemistry, of whom I am one. Therefore it is not by chance that it is in our circle that the call has been sounded the loudest for new opportunities for work, freed from the burden of instruction, and offering the quiet necessary for the conduct of research.

But all our efforts failed to bring us to the desired goal, and we were on the point of giving up the plan in sad resignation, when the project of your majesty to call upon the aid of all the generous men and women in the land in supporting experimental research came to us like help fallen from heaven.

Instead of the chemical institute which we had planned, and for whose support we had lookt to the state, chemistry may now hope for two research institutes, where able men, enjoying the use of ample laboratory equipment and freed from every other obligation, may devote all their activities to new investigations. This will be of especial value to the younger generation of chemists. I am thinking here of the men who, acting now as assistants or instructors in university laboratories, under the slavery of instruction routine, can only by the exercise of unusual capacity for work satisfy the demands of experimental research.

What holds good for chemistry, applies *mutatis mutandis* to the other natural sciences, and particularly to newly developed fields of knowledge, for which the clumsy organization of educational laboratories makes no provision.

The prominence which other countries have recently attained, especially the United States of North America, thru the possession of such institutions, we ought in this way to reach again. If the hopes which we all center in this new institute are fulfilled, there will in the future be no lack of Nobel prizes in Germany, and we may then hope to maintain

further the honorable position which we have hitherto held in scientific discovery.

But every consideration of the close connection between progress in research and modern political economy teaches us that this is not alone a question of honor, but also of practical material advantages. It is not my task to express this relationship statistically or in terms of national economy. On the contrary, let me invite you to make a hasty excursion thru my own field of science. This will give me the opportunity to indicate, thru the most recent successes, the multiplicity of the problems which face us, and the fruitful results reached in the most diverse branches of industrial activity.

As I have already mentioned, our conception of the chemical elements has been somewhat altered by the discovery of radium, the first element to be discovered by a woman. We now know more than two dozen related substances, the so-called radioactive elements, and know, too, that since they decompose spontaneously, the transmutation of the elements is possible.

In these important investigations, Germany played at first but a small part, altho the Röntgen rays were the incentive which led to the discovery of radioactivity. The reason for this was that Germany possest no raw materials containing radium, and that most of the German investigators lacked the means to buy the costly element. This lack was particularly felt because various applications were found for radium in medicine.

Therefore, the discovery made recently by Professor Otto Hahn, a *Privatdozent* in the school of chemistry of this university, is all the more welcome. He has been working for several years on the transmutation of thorium, which is used in large quantities in the manufacture of incandescent gas mantles. In this work he has discovered several radioactive elements, the most important of which he has called mesothorium. He has further developed a method of isolating this mesothorium from the worthless by-products of thorium manufacture. I am therefore enabled to show you a sample of Professor Hahn's preparation. It is the bromine compound

of mesothorium, a white salt, which emits the same penetrating rays as the corresponding salt of radium. On the basis of its radioactivity, this compound corresponds to one hundred milligrams of radium bromide, but it costs only a third as much. Nevertheless, it is not cheap, for eleven thousand marks was the price of this small amount. Thanks to the generosity of Dr. von Böttinger of Elberfeld, this academy of science will in a few months possess two hundred and fifty milligrams of this substance for the use of German investigators. An amount of Professor Hahn's compound corresponding to ten grams of pure radium bromide can be prepared yearly from the worthless by-products of thorium manufacture. This almost equals the entire world output of radium salts hitherto.

Thru this discovery, the radium famine which has until now held sway in Germany should be overcome.

The horizon of experimental chemistry has been extended in an extraordinary degree during the last decades by the ability easily to produce very high and very low temperatures. The former is made possible by the electric furnace, with which it is easy to reach a temperature of 3,000° C. The latter is reached by cooling with liquid air. This is to be bought now in Berlin for the same price as wine of average quality, 1.75 marks per liter. We owe this to your majesty, who has had installed here one of Professor von Linde's great liquid air machines. How indispensable this has become to us is shown by the fact that several liters a day are used in this department of the university for scientific purposes.

Still more effective is liquid hydrogen, whose temperature is about sixty degrees lower. It boils at 252.6° C., that is, only 20.4° above absolute zero. Liquid hydrogen is not yet to be bought in Berlin; it is altogether unobtainable here. Yet I am in a position to show some, which however comes from the department of physics of the University of Leipsic, where it was this morning prepared, and whence it was transported here with the necessary precautions. We shall pour out a sample from the specially made vessel in which it is kept into a transparent glass, and I shall show you its low temperature

by dipping into it a glass tube closed at the lower end. On drawing this tube out, you see that it is filled with a white, snowlike mass, which is frozen air; this, however, melts a few moments after being removed from the cooling liquid.

The rest of the liquid hydrogen, remaining in the special flask, will be used today in the service of science. After my lecture, it will be taken to the physical-chemical laboratory of this university, where it will be used during the evening and thru the night by Professor W. Nernst in investigations of theoretical importance on the specific heat of elements in the region of absolute zero.

When the Kaiser William Chemical Laboratories are in operation, I hope that it will no longer be necessary to send to Leipsic for liquid hydrogen.

Liquid hydrogen was first prepared about twelve years ago by Professor Dewar, in the excellent laboratory of the Royal Institution, but the carrying out of this difficult experiment was only made possible by the generous aid which Dr. Ludwig Mond, the great patron of chemistry, furnished him with. Dr. Mond, I may add, has not forgotten his German fatherland nor German science. To the University of Heidelberg, where he studied, he bequeathed in his will a million marks for chemical and physical research, and to the *Reichsanstalt,* which we planned, he made some years ago a donation of two hundred thousand marks.

Inorganic chemistry, which thirty years ago was considered almost a closed book, has received a new and unexpected impulse from new aids to investigation, such as very high temperatures, powerful electric currents, and so forth. I will show this in the case of only a few commercially important processes, and I shall begin with the attempts to use the nitrogen of the air in the preparation of important nitrogen compounds.

The direct transformation of the air into nitric acid has reached the scale of a wholesale manufacture. At this moment an immense factory is being erected in Norway in the neighborhood of a mighty waterfall by a combine of German

manufacturers and Norwegian engineers, supported by French and German capital.

Artificial saltpeter is already on the market, and a large part of the nitrous acid used by German dye factories comes from this source.

Even before this, use was made of the extremely original method for the preparation of calcium nitride from the nitrogen of the air, which was originated by Professor A. Frank and Dr. N. Caro of Charlottenburg.

And now a third process is announced, which consists in combining the nitrogen of the air directly with hydrogen to form ammonia. By making ingenious use of physical-chemical laws, Professor Haber of Karlsruhe has succeeded in overcoming the difficulties which formerly stood in the way of making practical use of this synthesis.

The well-known *Badische Anilin- und Sodafabrik* at Ludwigshafen-on-the-Rhine has taken over these patents, and has so far perfected the technical process that probably before long we shall see synthetic ammonia on the market.

The more such processes are brought into use, and the more competition they cause, the better it is for the consumer. The case before us has particular significance, inasmuch as most of the nitrogen compounds produced are used in agriculture as fertilizer.

In the judgment of experts, German farmers could easily use double—yes, treble the amount of the present output of nitrogen compounds, if the price were sufficiently lowered. Perhaps in this way they would be able so to increase their harvests as to make Germany independent of imported produce. Chemistry has here a problem of national importance to deal with.

The last-mentioned process has the advantage that it requires no electricity, but only heat—in other words, fuel, which Germany possesses in abundance. It is further noteworthy that its profitableness depends on the price of hydrogen, which, together with the cheap nitrogen of the air, forms the mother-substance. But the problem of preparing cheap hydrogen has already been solved by industrial chemistry,

as a result of the interest aroused in airships. In this case the previous experience has been confirmed, that all industrial activities are interrelated, and that improvements in one field can be of use in an apparently quite unconnected department of industry.

Such a condition of reciprocal benefit exists also between pure chemistry and metallurgy. The refining of gold, silver, and copper has gained immeasurably in simplicity thru the application of electrochemical methods. The study of alloys and of cheap methods of preparing metals which were formerly obtainable only with difficulty, such as chromium, tungsten, manganese, vanadium, and tantalum, has been of use to the steel industry and electrical engineering.

Not to forget the newest in this field, I present to you here a new sort of iron, so-called, electrolytic iron. It is prepared by the Langbein, Pfannhauser Works of Leipsic, according to a method which Professor Franz Fischer of this university has invented, in which the iron is precipitated by the electric current from a solution of an iron salt. Besides firm plates of a thickness of five millimeters, which can easily be rolled and drawn, you see a brilliant metal sheet, which has not been polished, but was removed in that condition from the electrode, and further a spiral, seamless iron tube, which was formed in the same way on a lead mold.

This iron is distinguished from all other kinds by its extreme purity. Because of this it possesses other physical peculiarities. Especially, it can be magnetized with great rapidity, and loses its magnetism as quickly. On this account very efficient electromagnets can be made from it. The ordinary electric motor, which you see before you, developed formerly only half a horsepower. Since the old electromagnets were replaced by electrolytic iron, its power has risen to 1.25 horsepower. So this new iron should be of the greatest significance in the construction of electric motors.

Our present material culture depends to a considerable degree on the utilization of fossil fuels—coal and peat. A later age will not fail, however, to reproach us with having wasted so carelessly this valuable material. For example, if coal is

used in the ordinary way to produce steam, and this steam is transformed into motion by means of a steam engine, more than eighty-five per cent. of the energy originally contained in the coal is lost. This waste, however, can be appreciably diminished by proper chemical treatment of the coal. If the coal is first transformed into gas—the so-called producer-gas—and if this gas is burned in gas motors, the yield of available power is trebled, and as by-products valuable ammonia and tar are obtained. The hitherto used methods of preparation of producer-gas are doubtless capable of modification and improvement in many ways, and so I dare to believe that sometime, in the midst of the coal industry, special institutes—perhaps on the plan of the Kaiser William Society—will be established, where all the methods of science, working in the closest union with practise, will be used in seeking the solution of these important problems.

The fossil fuels, which are of vegetable origin, form a bridge between mineral and organic substances. The chemistry of the latter far exceeds the chemistry of mineral substances in multiplicity, both of methods and of products. It is not strange, for this branch of chemistry includes all the complex chemical compounds that are to be found in the animal and vegetable world. The number of these organic compounds that have been carefully studied can be estimated at one hundred and fifty thousand, and each year eight or nine thousand new ones are added to this list. We may therefore calculate that at the end of this century organic chemistry will have equaled in complexity the diversity of form found in the world of organized life—that is, in the animal and vegetable kingdoms together.

This rapid increase is the result of so-called organic synthesis. From a few elements, of which carbon is the most important, all these combinations are built up in a wonderful manner, very much as the architect from the same bricks constructs buildings of the most diverse kinds.

Organic synthesis is a child of Berlin. It began here in the *Niederwaldstrasse* eighty-two years ago with the artificial preparation of urea by Friedrich Wöhler. It has been culti-

vated, too, chiefly in Germany. It is frightened no longer by the complicated components of the living organism. I will show this in the case of the three classes of substances which are of most importance in the world of life—fats, carbohydrates and proteins. The synthesis of fats was accomplished three generations ago by M. Berthelot in Paris. The first artificial carbohydrates—grape sugar, fruit sugar, etc.—saw the light of the world twenty years ago in Wurzburg. And the methods for the artificial building up of protein-like substances were worked out in this university in the last decade. Therefore I am in a position to show to you one of these substances. It is the most complicated that has until now been synthetically produced, and has such a long name that I do not dare to pronounce it here. The amount of this preparation is very small, and as you will see later, the flasks of the scientist in general offer a marked contrast in their smallness to the vats of the manufacturer. This corresponds approximately to the ratio of wealth possest by these two classes of men.

Yet this artificial protein-like substance, like Professor Hahn's preparation, is not at all cheap. The raw materials necessary for its production cost in the neighborhood of a thousand marks, and the work expended on it can well be estimated still higher; so it is not a practicable foodstuff. It is nothing but a curiosity, but the curiosity of today may tomorrow be made useful. Chemistry offers examples enough of this.

Because of such substances as proteins, carbohydrates, and fats, organic chemistry is now in closest touch with the biological sciences, for metabolism in the living organism is a series of chemical transformations closely concerned with these substances. Therefore chemistry is called to lend her aid in solving the great riddles of life—nutrition, growth, propagation, inheritance, old age, and the many disturbances of normal conditions thru disease. It is no wonder that there is the greatest activity in this interesting field, and we may well expect that in the Kaiser Wilhelm institutes the biological branch of our science will be provided for.

How advantageous the cooperation of biologists and chemists can be for industry is shown in the case of the Industrial Fermentation Laboratory in this city, where the results of scientific investigation are made use of by the brewers and distillers. This institute has contributed to the little exhibition of this evening a fine series of fungus cultures and yeast preparations.

Industrial chemistry, too, and many other trades have received great aid from organic chemistry. A few examples from recent years will show this.

Among the carbohydrates, cellulose is characterized by its widespread occurrence in the vegetable kingdom. It is the exclusive constituent of cotton and linen, and the chief component of wood, as well as of all other rigid parts of plants. What is there today that is not made of cellulose! Paper, collodion, celluloid, photographic films, smokeless powder, artificial silk, artificial hair, artificial leather.

Paper is in this bepapered age no curiosity, nor yet are celluloid and collodion. Smokeless powder and the many other explosives of organic chemistry I have not brought with me either, for the Ministry of Education seemed to me a too peaceful place for that. But artificial silk, horsehair, and films you see here displayed in splendid variety; they come from the factory of Prince G. von Donnersmarck. And in order not to overlook his competitors, I show photographic films from the Anilin Factory of this city, which, in contrast to the ordinary article, are extremely non-inflammable. All these products are the result of ingenious combinations of chemical and mechanical processes. To avoid misunderstanding, I must emphasize the fact that artificial silk and hair, in spite of their great superficial similarity to the natural products, have an entirely different chemical constitution; the latter do not consist of cellulose, but are classed among the proteins.

The splendid colors that you may have admired on these artificial fibroids, it is needless to say, are a product of the skill of the chemist. They belong to the class of synthetic coal-tar dies. This branch is now so extended that in the

technical schools semester-long courses are given in it. Hundreds of such colors are on the market, and the value of the output in Germany is, in round numbers, three hundred million marks. The greater part of these dyes is exported.

Among all these I will show you only synthetic indigo, since that was produced with the most difficulty and achieved an economic success. This beautifully crystalline preparation is produced by sublimation; it comes from the *Badische Anilin- und Sodafabrik*. It is also made in the dye works at Höchst on the Main.

The synthetic product is not only much purer and more beautiful than the natural dye, but also considerably cheaper. So the cultivation of the indigo plant in India has shrunk to a sixth of its former magnitude, and will probably soon entirely disappear. Even the Asiatics now dye their woolen and cotton goods with German indigo, of which thirty-eight million marks' worth was exported in the year 1909.

This is also the place to consider the two important dyes of the world of life—leaf green and the coloring matter of the blood. The first plays an important rôle in the fundamental chemical process on which the life of the plant depends. I mean the transformation of the carbonic acid of the air to sugar, which takes place under the influence of sunlight in the green leaves of plants.

The red coloring matter of the blood, however, has in our own bodies the important function of carrying oxygen from the lungs to the tissues, and of so making possible the process of combustion which is the source of our mental and physical powers.

Of the green dye of the leaf I can show you two pure samples, one of which is crystalline. I am indebted to Professor R. Willstätter of Zurich for this rare preparation, since he has studied this dye for some years with great success. The blood coloring matter has also been thoroly investigated recently in Stuttgart and Munich. In this investigation the curious result has been reached that the coloring matters of the blood and of leaves are chemically closely related. This then indicates a sort of blood relationship between the animal

and vegetable kingdoms. It must, however, be of very ancient origin, that is, it reaches back to that distant time when the animal and vegetable kingdoms were not yet distinct.

Of greater economical importance than the dyestuff industry is the manufacture of rubber. The use of rubber is continually increasing, and is now estimated at seventy thousand metric tons per year. If the average price is taken as ten marks per kilo, this means seven hundred million marks. It is therefore easy to understand why this has attracted the attention of the synthetic chemist, and for three-quarters of a year there have been reports of attempts to prepare rubber artificially. In fact, Dr. F. Hofmann and Dr. C. Coutelle, chemists in the Elberfeld Dye Factories, succeeded as early as August, 1909, in discovering a practical method for this. As mother substance they employ the so-called isoprene, a mobile substance, similar to benzine, which itself can be synthetized from still simpler materials. This liquid may be transformed to rubber simply by heating it in closed vessels. I show here a sealed glass tube which was originally filled with the mobile liquid isoprene, but now, after having been heated, contains a jelly. This is synthetic rubber. Prepared in larger quantities, it is, as this sample shows, of somewhat firmer consistency, and colored light yellow. Professor Harries of Kiel, famous for his praiseworthy investigations of rubber, has established conclusively that this is true rubber; he has also himself developed another method of carrying out this synthesis.

If synthetic chemistry has conquered this field, she is not confined to one natural product, but may produce a great number of like substances. You will, therefore, not be surprized when I show you other kinds of rubber, which are made not from isoprene, but from similar liquids, as, for example, from dimethylbutadin. Such products we call homologous. They have entirely similar characteristics to rubber but a somewhat different chemical constitution. Which of these substances is best suited for practical use has not yet been determined. The same is true of the much more important question of price. But if we consider the fate of natural

indigo, the Krapp dye, and other natural products, we can not but hope that synthetic rubber will gradually enter into a world-wide competition with the natural product.

To the same group as rubber belongs camphor. It also is produced synthetically on a large scale. The *Chemische Fabrik auf Aktien* was the first company to take up this manufacture, but now other firms are entering the field. In this way the Japanese monopoly of the camphor trade, which that country established by occupying Formosa, has been overthrown.

Another substance of interest is this artificial resin, which resembles amber very much in superficial characteristics, and, as these necklaces, combs, and cigar holders show, can be used as a substitute for it. These objects were placed at my disposal by the Bakelite Company; the resin bears the name of Bakelite. It is made from coal-tar products by a process which has in principle been long known, but its technical perfection and practical application are the work of the American chemist Bakeland.

In close association with medicine, synthetic chemistry is occupied with a zealous search for new remedies. Their great abundance forces me again to a very modest selection.

In this bottle you see a white powder, a now much used hypnotic called veronal. It has nothing to do with the older vegetable hypnotics such as opium, etc. It is rather a purely synthetic product. A tenth part of this amount would be sufficient to put this whole assemblage in a soft sleep. But should a simple exhibition of this drug at my lecture have such an effect on certain individuals, there would be no better antidote than a cup of tea such as you see before you. For tea contains a chemical compound which acts as a stimulant to the nervous system and the heart. This is also contained in coffee, and was discovered here ninety years ago by Runge. The humorously inclined discoverer gave it the name of "Coffee Base," which, however, was later changed to the better sounding name, caffeine. It is a strange coincidence that the synthesis of this compound was also accomplished in this university fifteen years ago. This has been developed to an

industry. The contents of this bottle are synthetic caffeine made by the firm of C. F. Böhringer and Sons, of Mannheim. It is prepared in large amounts from a constituent of guano—the so-called uric acid. But it has gone thru such a fundamental chemical transformation and purification that none of the unpleasant characteristics of the raw material remain. The chemist can, therefore, speak of it in the same terms that Emperor Vespasian used in speaking of some money from an unsavory source which was paid to him as a tax: "*Non olet*" (it does not smell).

Until now pure caffeine has only been used in quantity as a drug. But it has a much greater significance as the basal principle of coffee, tea, etc. So next to alcohol, it is certainly the most used beverage. As soon as it is possible to produce the aroma of tea and coffee synthetically—and that is surely within the bounds of possibility—nothing more will stand in the way of artificial preparation of these drinks. And if at the fiftieth anniversary of the Kaiser Wilhelm Society the Minister of Education gives a tea, let us hope he will serve the synthetic kind.

Organic synthesis does not confine itself to plant stuffs, but produces with the same zeal products of animal life.

An instructive example of this is a remarkable substance, adrenaline, which is formed in our own bodies in the suprarenal glands, and has a great deal to do with regulating the blood pressure. Soon after it had been prepared from these glands in a pure form, a chemist of the Höchst Dye Works, Dr. F. Stolz, succeeded in artificially preparing it from coal-tar products. The synthetic preparation has now been put on the market by the Höchst Dye Works, under the name of "Suprarenin." In very dilute aqueous solution it causes a strong contraction of the blood vessels and thus forces the blood from the tissues. If, for example, we paint with it any part of the skin oversupplied with blood—let us say a red nose—it grows pale in a few minutes. Unfortunately, this bleaching effect is not even, on account of the varying permeability of the skin, and since the effect wears off after a time and the former redness returns, it can not be used as

a cosmetic. In surgery, on the other hand, it finds a useful application. Many incisions can be made, with the aid of this drug, without bleeding. This is very convenient in operations on the eye, in the mouth, and in the nose.

The Höchst Dye Works have placed this preparation, in its various forms, as you see here, at my disposal; they have also added several samples of the new arsenic drug, "Ehrlich-Hata." This now bears the name "Salvarsan." Whoever wishes to know more of this substance may hear it from a more able mouth than mine, for the discoverer, Professor Ehrlich, is with us this evening.

Even the cherished children of Flora, the sweet-smelling flowers, must perforce feel the competition of chemical synthesis. The perfume industry thru its aid has greatly increased, and shows in Germany alone an output of forty to forty-five million marks. Among numerous preparations I can show only a few samples here. This bottle contains artificial violet perfume, the so-called *Ionon,* discovered in this university by the late Professor F. Tiemann, and manufactured by Haarmann and Riemer in Holzminden. The contents of the bottle would be enough to envelop not alone the Ministry of Education, but the whole street "Under den Linden" in clouds of violet fragrance; for the perfuming power of this substance is extraordinarily great.

In contrast to the simple Ionon, most of the natural flower scents are the products of complex mixtures of perfumes. Nevertheless, the attempt to reproduce them has met with success. Among the flower perfumes exhibited here are those of the maybell, jasmine, lilac, tuberose, and, most remarkable of all, artificial oil of rose. Altho the natural oil contains more than a dozen and a half different aromatic compounds, the chemists of the Leipsic perfume industry (Heine and Company, Schimmel and Company) have succeeded, after tedious investigations, in isolating all the constituents and producing them artificially or obtaining them from other cheaper oils, and then combining them again in the right proportion. It requires a delicate nose now to distinguish the artificial from the natural oil of rose.

I will only hope that the high protectress of the roses, her majesty the Kaiserin, will not take amiss the inroads of chemical synthesis on the monopoly hitherto held by her favorites. Perhaps she will be more kindly inclined if your majesty will have the condescension to receive this sample of the artificial product, and present it to her majesty the Kaiserin as the homage of industrial chemistry.

These examples show with what success organic synthesis has met in imitating nature's handiwork. What I have said will also, however, suffice to show that chemistry, and in general all natural science, is the true land of unbounded possibility. In opening up this land and bringing to light its hidden treasures, the Kaiser Wilhelm Society will in the future play a large part. It is of course not to be expected that it will at once do everything and push to the side all other scientific institutions. We of the older generation do not feel so weak as to allow that to happen. On the contrary, we will strive with all our strength to offer the newer institutions worthy competition. That will keep both sides fresh.

But there can be no doubt that the godchildren of the German Kaiser in the fresh, healthy air of the greenwood, and of course with ample nourishment provided by the donators, will soon grow strong, and take a worthy place in scientific investigation.

So we may with confidence hope that a later age will look upon the founding of the Kaiser Wilhelm Society as a boon to the cultivation of research in the natural sciences in Germany.

Emil Fischer

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IV

EDUCATIONAL VALUES IN MATHEMATICAL TEACHING[1]

Any member of the teaching profession, a profession which is closely bound by the demands of routine work, is likely to be tempted either to assume radical and extreme views, or else to become stereotyped, and to follow tradition. Just which direction any individual will follow is largely a matter of temperament. But either extreme usually betokens a failure to see things in their true relations, and in the proper perspective.

It seems to me that meetings of Associations like this offer admirable opportunity to look at some of the larger aspects of our professional responsibility, to attempt to place our various methods and aims in some perspective, and to determine some principles of procedure, armed with which we may return to our routine of details with fresh enthusiasm and renewed confidence in the worth of our labors.

During recent years much thought and experiment has been brought to bear on the attempt to determine some form or standard in terms of which the various subjects of study in our schools may be compared and possibly measured. One important phase of the problem, tho far from being completely worked out, serves to indicate results which may be stated roughly as follows:

In the study of any subject, as, for instance, mathematics, we are first met by a large number of specific results in the nature of facts acquired, theorems proved, principles mastered, which distinguish it from other subjects. This category of results I will call the *subject-matter*.

These facts are acquired and elaborated by the use of cer-

[1] Paper read before the meeting of the Association of Teachers of the Middle States and Maryland, December 2, 1911.

tain methods involving mental processes which are quite distinct from the subject-matter itself. In this second category, which we may call *mental processes,* we place memory, the power of analysis, generalization, reasoning, and the like.

As a result of this working over and mastery of the subject, qualities of a quite different character are evoked which we may call *moral qualities,* such as perseverance, patience, reliability, response to duty, appreciation of the True, the Good, and the Beautiful.

Of course, these three categories can not be defined with precision, and very likely no two men would agree exactly as to their content, but I think it is clear that they form a convenient way of dividing into segments what may be a continuum of intellectual experience.

Now it is claimed, and, indeed, it seems quite reasonable to any one on a moment's reflection, that the contents of the first category are but slightly transferable from the field in which they were acquired into other fields. For instance, the facts about the angles of triangles, which are learned in geometry, are not carried over spontaneously and easily, even into so closely allied a field as that of physics. In a certain sense, then, the subject-matter is of narrow educational value. Its significance is intensive rather than extensive.

The second category is transferred quite easily. The rational processes, for example, which the boy learns to use in his mathematics play him in good stead when, in the Law School, he is trying to follow the effects of legal principles. The relation between the educational content of the first two categories was well exprest some years ago by President Hadley of Yale, when he said "the value of an education largely consists in studying facts which will not be used in after life by methods which will be used."

The third division of moral or spiritual qualities is of indefinitely wide transferability, and in this sense constitutes the elements of most extensive educational value in the study of any subject.

Let me hasten to add that the acquirement of the second and the third class of results is impossible without the first.

No boy can get the mental and moral value which the study of mathematics should afford merely by hearing some one talk about it. Only by steady and hard work with the details of the subject will the richer benefits be derived. Excepting for the man who will occasionally use mathematics in his professional career, the subject-matter in and of itself is of little importance. It is a means to an end. It is the lever with which the windows of the mind are pried open, and we teachers must be content to see it discarded when this all-important work is done.

In the present discussion I am not thinking of the needs of the student who will use mathematics professionally. The requirements of the engineer and of the mathematician are comparatively simple and easy to satisfy. It is the general student, who, perhaps, has no idea of even going to college, whom I have in mind; the kind of boy who will never use any fact of algebra or geometry more than once or twice in his life, and is then so surprised that he seeks out his old teacher, and tells him all about it—just to make him feel that he has been of some use in the world.

Many of the live questions of mathematical teaching take on new meaning when looked at from the point of view of transferability. I have time to mention but a single one, the problem of the correlation of the various mathematical subjects.

I am certain that all of us have had the chilling experience of asking a question of an algebra class which involves a little geometry. One boy spoke for many when he said, "I am certain that I could answer that question if I were only reciting in geometry." This merely means that the boy cannot transfer easily even from one classroom in mathematics to another in the same department. That is, students are very far from having their complete mathematical knowledge available all of the time. We wish they might. Theoretically it seems very reasonable to suppose that if the hard and fast divisions into distinct subjects were removed, this difficulty of transference would not exist. For it is certain that there is sluggish flow of ideas not only between the subjects of algebra

and geometry, but from instructor to instructor, and from classroom to classroom. So far as this one principle of transferability is concerned, its weight seems to be entirely on the side of a closer correlation of the different mathematical subjects; for such correlation would remove some of the barriers over which transference is difficult.

At many points pertinent and natural relations between algebra and geometry should be emphasized. Even if the boy is in his first year in algebra certain facts from geometry and physics may be stated, and the algebra of these facts worked out with telling effect. And in geometry, use should be made of algebra on every reasonable occasion. The fundamental facts of trigonometry may very well be introduced in connection with the work on similar triangles in geometry, and many bridges between analytical geometry and advanced algebra should be constructed. All of this tends to make the line of division between the subjects less sharp and formidable.

But it does not mean that algebra and geometry should be completely amalgamated, or fused, as some of the exponents of the correlation movement call it—confused I should say. The principle of transferability is not the only one which comes into this discussion. The type of imagination, of reasoning, of mental atmosphere, which is effective in geometry is quite different from that required in algebra, and I believe that both subjects would suffer from this fusion.

I will not go into details regarding the elements in the second category, that of mental processes, tho there is ample material for discussion. But I must remark in passing that the educational ideal of our fathers, which they tried to express under the nebulous name of "discipline," really includes much that the present analysis places in the second and the third category. Compare, for educational content, this ideal with that of some of us moderns, who make the fact, the vocational fact, the ideal of our effort. In spite of its chill and formal sound, the older ideal is vastly deeper, and broader, and fuller than the modern one.

During the remaining moments let me emphasize some of the moral qualities which mathematics may be expected to

evoke, and which are of transcendent educational importance, not only on account of their mathematical value, but on account of their intimate relation to the broad intellectual life of every serious man.

I will mention but three: the respect for truth, the use of the intuition, the appreciation of unity and harmony.

First, the respect for truth. In our subject we draw our conclusions from definitions and postulates which we lay down as absolute, not relative, and the theorems follow from these principles with a certainty which leaves no room for difference of opinion in regard to their validity. The first man to prove a certain theorem has not created it, he has discovered an eternal truth. The fact from which he has drawn the veil has not changed its character; it has merely appeared. There was at the beginning of time a body of mathematical truth, dependent on no man's opinion or intelligence, not pragmatic, but absolute, awaiting the coming of a mind which could lay it bare. I say it should be an impressive experience to the young mind when it comes in contact with a new and unimagined truth, and realizes that from everlasting to everlasting that truth must remain the same. Our formulation of the physical laws is modified as we gain new instruments to discover our past inaccuracies. Social ideals are purely relative to the time and place in which we may be, but here is something on which we can depend in the midst of the change or decay of our relative knowledge. This experience is of moral value.

The use of the intuition. In the teaching of mathematics it has always been my custom to urge the student to push ahead of his actual demonstration with the imagination. Daily, in explaining a new theorem, I ask, "How *ought* it to turn out?" In this way the imagination and the intuition are stimulated, and the reasoning faculties come limping along in time with the demonstration. This, it seems to me, is an important matter. Of course, students must use their observation and reasoning, but a sure intuition to break the way for the mind is the rarest and the most delicate gift of all. The powers of observation must be exercised on the facts, and the various

features of the problem must be noted; the process of reasoning must be employed on the observed relations and facts. But these processes are of an order far inferior to the keen intuition which can scent the direction in which a truth lies before it is fairly in sight. We must, however, continually emphasize the fact that an accurate intuition can only exist in a mind which is filled with facts which have been mastered, and relations which have been followed out—a mind in which past accomplishment has formed a medium in which the intuition may exist. We observe and reason only because we are finite. Only by this means can we present our results in form which is intelligible to others. A Supreme Intelligence would not need to observe nor to reason; It would know. The feeble approximation to this immediate knowledge which is possible to us is what I mean by the intuition. The great masters of science and mathematics have possest this gift in large measure. We can all possess it in some measure. And it is our privilege and our duty to stimulate it in our students.

The power to appreciate the unity and harmony of mathematics is closely related to what I have been saying. Mathematics is full of relations which, to the mind that is open to them, are most suggestive of a unity which extends thruout the whole domain of science. In algebra, the fact that the solution of the quadratic equation affords all the types of number which are needed for all algebraic purposes is not only surprizing, but indicates an economy in notation for our subject which is truly remarkable. In geometry the properties of the regular bodies, the sphere, the relations between the sphere and its circumscribing cylinders, and a host of other relations are most suggestive. Why should the square of one side of a *right* triangle exactly equal the sum of the squares of the other sides, that is, the simplest numerical relation be true, for the triangle which is simplest geometrically? These and analogies like them indicate a coordination between the realms of number and of form, which ought to be pointed out at every hand. Furthermore, when we pass to the physical world, why is the law of gravitation

exprest in the very simple form of $F \sim \frac{m}{d^2}$? Why should so many of the laws of nature seem to be exprest simply by our purely abstract numerical formulas? One can not dismiss the question with the statement that we made our numbers to fit the laws, for the formulation of the laws followed centuries later than the adoption of the numerical notation. The numerical laws follow from the natural process of counting, a distinctly human device. The law of gravitation is not determined by our thinking about it, but is independent of our thought. This illustrates what I mean by the unity of science. What is simplest and most beautiful in the domain of pure mathematics, too often corresponds to the facts of nature to be accidental. I contend that it is our privilege to point out at every possible turn this coordination of number and form, of formula and physical law, of unity between the mind and nature. This is an experience of no mean moral value—to realize that our mathematical procedure is attuned to the harmony of the universe.

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V

THE DAM IS OUT!

The energy, the activity, the forces of society may be likened to a mighty river, fed by innumerable small streams. It comes down thru the ages, gathering force and volume on its way. Up near the head waters of the main stream, in ages long ago, educational mills were established at points of vantage, and their product, the students and scholars fashioned and formed within their walls, returned into society, to replenish and invigorate it. These educational mills were like relays of energy in their function.

As this stream came down the ages, these mills were repeatedly moved down stream and reestablished on new sites, either as they were, or in more elaborate and extensive form, equipped according to the demands and needs of the new time, and suited to the turning out of a more varied product adapted to the newer age.

It frequently happened during these transition eras, that the removal of the mill downward was delayed too long. Indeed, such is liable to be the case at all times; for a plant is usually, and, indeed, too often, planned for the present with too little thought in regard to provision for the future. The consequence is, and always has been, that the school as an educational mill is a little behind the times, representing a state of needs already past. This has its advantages in delivering us from an ever-shifting flow and flux, and in introducing into the institution the element of stability. But while we must avoid the extreme of change and instability on the one hand, we must also avoid that of fossilization, of arrest of development, on the other.

Now, there was a time, not to go further back than a century, when the only mills, or factories, in operation, turned out only one kind of product, viz., young men formed or fashioned all alike by the same mental food and exercise.

But in the last hundred years the river has received many tributaries, and has come down over a rugged territory, with swift descent and in many rapids. The vast commerce and traffic of society now needs the lower course of the mightier stream for its increased business. These educational mills have been in the hands, very largely, of conservative monopolists, who have been averse to moving and enlarging their plants to suit the needs of the time or to allow those who would compete with them to establish separate plants. Those engaged in educational work are not always above employing the means and the methods of the powerful monopolists in other fields, or above the feelings of selfishness and of jealousy.

Well, about a quarter of a century ago the sciences and the modern languages, including the vernacular, became so insistent in their agitation for copartnership, and were felt to be so dangerous in their threats, that the erstwhile monopolists agreed to compromise with them on the ground that they should all go in together, move the old mills down the stream, enlarge them, and divide the patronage and the prestige, and so to satisfy the new members of the firm. Thus new plants were constructed which met the new demands to such an extent that hostile clamor was for a time allayed.

But as the years wore on, and the stream of modern civilization prest closer and closer to our day, it happened that the language and the science partners forgot how they themselves had to fight for the "right of domicile" with those who had enjoyed a monopoly for ages; they seemed only too willing to become more monopolistic than the monopolists themselves. Nay, they even used their scientific ingenuity and their linguistic ability to devise and formulate plans and specifications for a *dam* across the stream just above their mill, so as to let down just water enough for themselves, and thus keep other interests, having various other kinds of mills, from doing business—at least, from using the social stream. It is true that various small shops have sprung up independently in isolated places, but these have had to furnish their own power as private institutions. The monopolistic mills re-

ceived the social power, and yet neglected or refused to introduce the machinery necessary to satisfy the demands of society in the directions indicated by the independent mills—the commercial schools, the industrial and trade schools, the agricultural schools, etc.

This was a bold venture, the damming up of the stream in addition to their natural and traditional prestige, the accumulation of ages of sentiment. It was shortsighted, too, even tho science and philosophy (my own interest) had a head, voice, and hand in it. They should have known that sooner or later the vast volume of water back of the dam would grow vaster and still more vast, notwithstanding the increase in surface and consequent evaporation (of pent-up feelings and sentiments), and that, sooner or later, there must be a reckoning. The social stream, any more than the stream of time, can not be turned backward.

The representatives and exponents of the new education became thoroly aroused at the damming of the stream, following, as a climax, the persistent refusal of the old monopolistic mills to even attempt to turn out anything but the old product. This, they claimed, was all that society needed, and all that it should have. A man trained in *their* way, they contended, could turn his hand to anything he wished, and succeed. If a man only *knew* some mathematics, languages, pure science, and philosophy, as they themselves did (and could do a bungling job of teaching), then he could essay to attempt anything with success! The New Education could well paraphrase the words of Patrick Henry, in its attempt to secure reasonable concessions from the old corporate monopoly: "We have petitioned; we have remonstrated; we have supplicated; we have prostrated ourselves before the monopoly. Our petitions have been slighted; our remonstrances have produced additional violence and insult; our supplications have been disregarded; and we have been spurned, with contempt, from the foot of the throne. The war is inevitable, and let it come! I repeat it, sir, let it come!"

The new education—the industrial in all its forms, the com-

mercial, the agricultural, the pedagogical—then had nothing to do but to recognize that a state of war existed, and that the old monopoly had declared it in wrongfully, and without authority from society, damming up the social stream. The New then began, and continued to dynamite the dam by forceful and persistent agitation, until now the whole *dammed* stream is upon us in a torrent! Educational conventions, local, state, and national, think and talk of nothing else than how to bring order out of the chaos following the flood. The old mills are in danger of being carried away, and promoters representing dominant social interests are surveying the ground below, with a view to putting up mills to supply the social needs. The old monopolies are too busy preserving even what they have, to make much of a protest against these new enterprises.

This state of affairs has been brought about by the short-sightedness on the part of those "in possession," in regard to the vastness and complexity of the social organism; by the conservatism begotten of the habitual teaching of what *has been;* and by a lack of scientific knowledge as to what is of *real worth.* Probably the tap-root of the last cause mentioned, an unscientific attitude toward educational values, is the prejudiced notion that the *practical* can not be cultural, disciplinary, or in any way *valuable.* Another fallacy underlying the old conservative, monopolistic conception of education is—amounting virtually to the same thing—that some subjects are *talismanic* in all fields of thought, and that they have the inherent grace or power of securing an ability which may be turned indiscriminately, like a water-hose, upon any subject, compelling it to yield under the play. The holders of these views have persisted in excluding everything from the schools except the *protected* subjects. According to the report of the Carnegie Foundation, some subjects, like Greek, are not only protected, but encouraged by, according to them, extra credit. It is a practise analogous to loading the dice. Like the proverbial ostrich, the old education has blindly persisted in its position till overtaken by the flood.

This, consequently, is really a time of grave concern and

danger. The situation is one of transition, and hence one demanding constructive statesmanship of a high order in education. If there is union, as there should be, secondary education, which seems to be the center of greatest disturbance, may be systematized, so that each secondary school plant will be enlarged to meet not only the demands of the present, but those of the future.

The idea of "studies by Divine right" must be abandoned. It is not, of course, contended that any kind of a simple, diluted, or scattering course is equal to the closely knit, complex, and highly organized bundles of knowledge represented in others. Any course, to be worthy, must be such as to challenge the best efforts of the student. But the great activities found in society must appear in the school. Society is crying out for help in the business and commercial world, and hence the high school must turn out a product of this type. Nor must it put the brand of inferiority upon this product, or upon any other. There is no reason for thinking that the boy or girl who is well trained in the field of business, and able to take a responsible position, is not as truly educated, tho in a different direction, as is the boy or girl who spends years upon Latin and Greek, and then is unable to do any real work in the busy world when the high school course is completed. Society is also crying out for boys deft of hand, and for girls versed in the theory and practise of the fundamentals of housekeeping and homemaking; and hence manual, or industrial work, and cooking and sewing, with their correlative sciences, will be found in the high schools of the future, and will be taught by such experts and in such a scientific manner, that they will be as substantial, and will challenge effort to the same extent as the literary subjects. They will be, in every way, as truly educative as the old lines, and, in fact, much more so to many. Society is also crying out for expert and scientific farming; for agriculture, after all, is the foundation of individual and national life and happiness. And so agriculture will be offered in schools where the environment demands it; not that every pupil must take it, any more than that every pupil must take Latin; but that he

may take it if he wishes and needs it. And here again, as with every course offered, it must be worthy, and must be stamped as worthy and honorable. Society also demands and needs more real teachers, especially in the rural schools; and there is no adequate agency at present for furnishing the supply, or even a small fraction of the supply. The solution would seem to be to establish and adequately equip for this purpose a pedagogical department in the newer type of high school. All the facilities are at hand; why not utilize them? Other demands may appear from time to time. What are high schools for, if not to furnish the supply for all these needs of society?

If the present high schools are not reconstructed and diversified, as here indicated, their day of reckoning is near at hand. Even now, independent schools of various kinds, representative of these modern and pressing demands, are being established. This is largely true because the old monopolists, holding to the theory of the Divine right of certain subjects, have held the fort and refused the right of domicile to the newer lines. If the policy become general, of establishing independent and special schools to supply the demands of society, the taxpaying public will soon be confronted with the problem of double, treble, or quadruple taxation to support all the different kinds of high schools in their inevitable duplication of work, and it does not take much of a prophet to foretell which type will suffer most when the day of reckoning comes: the old-line, cultural or college-preparatory high schools on the one hand, or those ministering to the demands of an active and efficient world, on the other.

This undoubted result would be an irreparable loss, for we need the old-line high school curriculum as much as ever. It would be sheer philistinism to injure it in word or deed. It is too bad that its representatives have been afflicted with such shortsightedness and jealousy. They have contended that there is no room in secondary education for more than one kind of school, and that, if any other coordinate course should be established, there were designs upon its own life. The new interests, recognizing that there is room enough for all,

merely insist on the "right of domicile." We need the old lines now no less than heretofore; but we need the new lines *in addition.* Why should the old object? The new is willing to be tried, tested, and weighed, and judged accordingly. All it wishes is a fair show in a fair field. It claims to be, and proves that it *is,* an accredited representative of as vital and general a social demand as the old.

The theory has prevailed too long, and to too great an extent, that the education which society provides and pays for is given to the individual as his right, to be used as he wishes; instead of being loaned to him as a trust to be used for the benefit of society. When the individual is educated, he is largely indebted to society. Hence it is that society wishes those things taught in the schools, which tend to better conditions in those directions.

The same mental attitude may be said to have prevailed to some extent in the college situation. There is much in the present college view which has come down from the merely traditional past. Whole sections of the old college mill have been brought down bodily from the past, and fitted into the new plant—or, rather, the partially reconstructed plant. Many anomalies, and even contradictions, still remain. The first two years of Greek, not so long ago, were considered of high school grade, and unworthy of college credit. New and modern demands have *forced* the college to give and to credit first work in Greek. Not so long ago the first four years of Latin—including Vergil—were considered of secondary grade, and unworthy of college credit. Now, in many colleges, only the first two years are discredited as unworthy to be given college credit. And yet first work in German and French is considered worthy as college work. The day will soon come, as it should, when first work in Latin will take its place in college with first work in Greek and in the modern languages. It will tend to encourage the study of Latin. Physics may be begun either in the high school or in college; so may chemistry or botany; but not so the study of bookkeeping and business practise. Most colleges are still afflicted with the doctrine of formal discipline in an aggravated degree, in re-

quiring a foreign language for entrance, even tho the student does not continue, and does not need to continue, that language in college; the theory being, presumably, that his linguistic "faculty" has been whetted, and, hence, made keen in any foreign language or even in English! He has developed a good "head of water" for his linguistic hose, which may be trained on any obstacle in the linguistic field! How foolishly we college faculties often act on practical questions! If a boy has sixteen good, strong courses for entrance to college, but has not had a foreign language, he must be *conditioned,* penalized; but if he has fourteen or fifteen courses, including a foreign language, he is all right! No wonder we are frequently discredited as visionary theorists by the man who *does* things.

I would not be understood as being an extremist. Wisdom is usually found in the "Doctrine of the mean." In the extreme we have the reactionary on the one hand, and the radical on the other; but nearer the golden mean we have always, in the struggle within the group, the conservative on the one hand and the progressive on the other. I like the progressive attitude; it is a preparedness for the oncoming future, and is a far look ahead. The conservative attitude, while probably necessary to prevent progressiveness from becoming extreme radicalism, is essentially a looking backward to a golden age in the past. Now that the dam is out, we are forced, for the time being, to let the dead past bury its dead, and to bethink ourselves of the chaos around us with a view to a sane reconstruction. This must be done from the point of view of society rather than from that of the individual. It is certainly a matter for congratulation that the day of the merely intellectual and individualistic is past, and that education is to be brought to a sane and progressive mean by a due recognition of *feeling* and of *doing* in view of society. Good is made to come out of evil; and the works of folly become the occasion or the cause of progress.

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VI

THE BOOKMAN IN HIS RELATION TO THE TEXT-BOOK PROBLEM [1]

The textbook publisher in this country is of comparatively recent origin. He came into existence when schools began to demand that every pupil in the same class should use similar textbooks. Dealers in school furniture, heating, ventilating appliances, and school supplies developed as industries somewhat later. Seventy-five years ago, in New England, outside of a few cities, schools were greatly hampered by their inability to require and procure uniform textbooks. As the West developed, settlers brought with them their old schoolbooks, and trouble and confusion resulted therefrom in the schools. The practise of giving an exchange price for old books was a concession on the part of publishers to aid the school authorities in getting out of the hands of pupils the diverse textbooks in the schools, which, remaining in the community, made classification impossible. The entire volume of the textbook business of every grade and description in the United States and its dependencies is under rather than over twelve million dollars per annum, divided among more than one hundred publishers. Briefly stated, the cost of textbooks of all kinds in any town or city never exceeds fifteen cents per capita of the population in such community.

Publishers advertise their new and forthcoming books in educational journals, in circulars, by mailing books free as samples to thoughtful and able teachers, that school authorities may know these books, and ascertain for themselves the merits of the plans therein presented. When some publishers have sought to limit this advertising expense by cutting their number of donated sample copies, they have been so deluged

[1] Paper read at the meeting of the Department of Superintendence of the National Education Association at St. Louis, Mo., on February 29, 1911.

with letters from teachers and school officials, threatening them with loss of future business, that this expensive advertising practise still continues. Yet these agencies are feeble in comparison with personal presentation of the merits of a textbook by a skilled and tactful bookman.

A textbook first appears in the method or treatment of some excellent teacher in the schoolroom—friends, visitors see its merits, and get in that way some of the ideas. The next step is to ask for all phases of the treatment, *i.e.,* have the teacher write out a copy of his presentation. This finally becomes a serious task, and the author works out his plan in detail and presents his manuscript to some publisher. It is criticized by editors, referred to other critics, its adaptability considered—and accepted. His manuscript may be rejected; neither editor nor readers may get the idea or thought of the author; because the author's ideas run counter to the views of those who read the manuscript; because the manuscript is believed to be so contrary to prevailing usage in the schools that the sales would be small. In the beginning, authors and founders of publishing houses were both printers and salesmen. When Professor Davies of West Point wrote his series of arithmetics, he found a publisher in a young man, the founder of a great business, who took the risk of printing, and personally canvassed teachers and boards of education. As business increased, it became necessary to delegate the sale of textbooks to other hands than those who wrote, published, or printed them. To market a new idea, or article, salesmen of a special character are needed. They must be able to demonstrate the value of this article. To sell a new type of locomotive, its merits must first be explained to officials; its advantages must be pointed out to engineers, who will have charge of it; future orders depend upon the way the new engine stands the tests made by the railway people.

The general introduction of music in the schools is largely owing to the personal efforts and demonstrations, years ago, of two bookmen, who, against great indifference on the part of school officials and more skepticism, in frequent contests

with each other and others, proved that music could be taught just as other subjects. Similar services have been rendered to the schools in their time by many other bookmen. At present, any new idea affecting the schools, their well-being, such as results from better heating, lighting, ventilating, must be virtually taught and demonstrated to school officials and authorities by the representatives of such industries, much the same as other topics are taught in the schools and in the world. The commercial world thus becomes an important factor in bringing about better conditions. In a recent article Professor Duncan quotes a famous chemist, Professor Bernhard of Paris:

> "Former discoveries of mine I gave to the world and they have practically died. The last one I have patented because only by making it an object to some commercial interest to make it, can it be brought to man's attention and the world benefited."

An article that anybody can make, a book not protected by copyright, is not likely to be made by any one. Any publisher can publish the great debates between Lincoln and Douglas. The copyrights on numerous books of great literary value have long since expired, but if you want to purchase a copy, the only place that one can be found is probably in the stock of the dealer in second-hand books.

The bookman, in his first relation to the schools, exists directly to point out and exploit the aims and methods of the author of the textbook that he is trying to sell; indirectly, to help the schools thru betterment of methods of teaching. For these purposes he needs opportunity to lay his facts and points before teachers and superintendents,—otherwise, it might be months and years before these busy people would discover what this author has to tell them. The cost of textbooks of all descriptions does not exceed three per cent. of the appropriation for running expenses of the schools. Yet to the pupils in the schools it may be a question of fifty per cent. of their time and opportunities, to have this problem thoroly studied and solved, to the end that the tools used by them shall be of the best quality and latest pattern. Therefore,

teachers and superintendents must and do take all the time that they can spare from their other duties to acquaint themselves with the contents, methods, and aims of textbooks.

The bookman, coming into contact with the schools at various points, is quick to find excellent teachers, teachers with inventive minds, and to encourage them to express their powers in the line of authorship. Thru the bookman a very large number of the best textbooks come to be written and published. He is, therefore, an important factor in the growth and maintenance of good teaching, and the consequent uplift in the schools, even tho the immediate results of his work are not so visible as those resulting from the efforts of others. Another function of the bookman is to secure and insure a high quality of workmanship in the manufacture of textbooks. He is an important factor in this, because he witnesses in the wear and tear of books in the schools shortcomings in binding and printing, and learns of defects in methods of treatment from the criticisms of teachers and patrons. These faults he is more anxious to correct than any one else. This causes him to be alert at all times in the interest of his customers—the schools.

Bookmen are not interested particularly in any one system or plan of adopting textbooks. They are in favor, as a rule, of the existing plan in their respective fields. They can not see, however, why teachers and superintendents, with their interest in the well-being of the children in the schools, can fail to oppose the form of state adoption; for under this plan the influence of the teacher, principal, or superintendent is practically destroyed. Where the town or city is the unit of adoption, the trend is more and more to place the decision of textbook questions in the hands of teachers and their responsible superior officers. In my opinion, Massachusetts is fifty years in advance of any other state in its solution of the problems involved in a representative government. The textbook law in Massachusetts, on the statute books over forty years, is as follows, *i.e.*: "Changes may be made in the textbooks used in a town at any time, notice having been given at a previous meeting, and two-thirds of the members of the

board voting in the affirmative"—simple, compact, progressively conservative, affording opportunity for changes, requiring careful consideration. Last year the legislature past an act requiring the superintendent of schools to make his recommendation of textbooks to the Board of Education, as a prerequisite to action on the part of the Board of Education. The bookman always welcomes the trend of the question of selection of textbooks to the skilled teacher modified by the judgment of principals and superintendent. By that method he escapes the influence of the politician, of the relative of some board-member's wife, of the enthusiasm for a rival's wares, because some one belongs to the same college fraternity, or went to the same preparatory school.

Strange as it may seem to some, publishers of textbooks and their employees, the bookmen, are leaders in the development of better methods and higher ideals in the conduct of business. Yet this paper would be incomplete without some discussion of the faults and misdemeanors of some few members of the profession. The bonus system—postdating of bills, extra discounts, cutting of prices when times are dull, etc.—is a common practise in many lines of trade. Banks are still soliciting depositors' accounts by promising interest on monthly balances. Dealers in pianos, automobiles, certain kinds of new machinery, continue the practise of paying commissions directly and indirectly for new business. Publishers of magazines offer premiums in various forms to new subscribers. It is an axiom in the business world that a business can not be developed on any other basis than that of absolute and unswerving honesty. But there is always a small percentage of business men who are not built right to actually always do what they believe is right. A salesman knows that if he misrepresents an article, hides defects in it, exacts too high a price for it, overstocks his customer by an inordinately large order, that the doing of any one of these acts will react upon himself, and work an injury to him and his future prospects. Yet some salesmen, who have not been consciously disciplined by experience, will still take a chance. Man's moral fiber has not yet been sufficiently strengthened in his

struggle upward, to always withstand temptation. The ability to put aside an apparent immediate benefit even when one's intellect tells him that in the long run such decision is right, is an attribute not universally possest. Happily for most of us, life is not a tragedy, but a comedy. The conflicts in the sphere of duty which constitute tragedy, in a comedy are always modified by happenings which mediate these conflicts. It is like a bad dream which, enmeshing us in its horrible chain of circumstances, is suddenly ended by an awakening. We are told by the moralists that this course is right, and that is wrong—why hesitate a moment over your decision? In actual life, however, such a clear proposition is seldom presented—usually there is always some wrong mixt in with the right and some right with the wrong—and one's decision in such cases is not so easy as the professional moralist would have us believe.

Now, the oftener a man is required to act, exercise his judgment, and the number of different planes in which these actions lie, bear a relation to the number of errors he will make. As bookmen need to act on inferences oftener, and on more fields than teachers or principals, they ought certainly make more mistakes. When such error or mistake in judgment is committed by a bookman who has a quasi-public position in his world, it is likely to have much more publicity than similar shortcomings on the part of other business people. If faculty meetings in some of our universities were in the field of vision of an enterprising reporter, there might come to us in the morning paper a story which would vie in climaxes and the fervor of ignorance with newspaper accounts of meetings of some public bodies. The author, the editor, sees his mistakes in black on white, but the errors of teachers, superintendents, managers of businesses, bookmen are not so definitely chronicled. Yet some bookmen have been guilty, in prosecuting their business, of errors, faulty judgments, and indiscretions. Teachers, principals, college professors, ministers, too, have erred in our time to such an extent as to bring some few individuals within the meshes of the law. But you can not successfully indict a whole people, nor a whole

class, nor a whole profession, because some individual member has erred. On the whole, bookmen, in their methods, their line of action, their life in and out of their business, challenge comparison with any other class of business men.

For this present purpose I assume that teachers may group our errors under four heads:

1. Discrimination in terms—giving to one place better rates than to another in order to secure business, some phase of the bonus system, etc.

2. Undue activity in the politics of the National Education Association and State Teachers' Associations.

3. Meddling in the affairs of the school—assisting teachers and superintendents to secure places; the use of political influence in or outside the schools.

4. Personal criticism of competitors for imagined business gain.

First. In over twenty-five years' experience in the business I have known and been informed directly and indirectly of not more than twelve instances of irregular practise on the part of bookmen. The motive in each case was intense personal feeling against some rival bookman, and the desire to win at all hazards. Of course, such actions are reprehensible, and should be frowned on by every one inside and outside the business. If this is true, it will be asked why does the publisher not promptly discharge the offending bookman and publicly disown the wrong act? For the same reason that in the family we do not publicly disown one of its members; for the same reason that a superintendent of schools does not recommend the discharge of a teacher who does some stupid thing, or gets tangled in the maze of questionable action. Again, the spirit of the age no longer permits the penalizing of employees for errors or faults which can be eliminated thru wise counsel of superiors.

Second. Undue activity at meetings of State Teachers' Associations or at the National Education Association. If bookmen are members of said association, or associations, they have as much right as other members to express their convictions on matters relative to the policy of the association. As

a matter of fact, bookmen rarely take any interest in either the program or the politics of such associations. They never do, unless solicited by superintendents or teachers. In such cases the votes and support of bookmen are as various and diverse as the votes and action of any other class of voters. Publishers themselves have no interest in such matters.

Third. Meddling in local politics or use of political influence. In communities where such influences control school affairs, such as the election of a superintendent, the appointment of teachers, the selection of janitors, the choosing of school sites, the erection of buildings, etc., it can hardly be denied that they may also affect the adoption of textbooks. Here are conditions into which the bookman is thrown, and for which he is in no way responsible. A man of ability and character, who has worked long in a limited field, has acquired an extensive acquaintance; he comes in personal contact with leading people in the various parts of his territory. He must be politic and tactful, as well as energetic in the prosecution of his business. Under such conditions he may be tempted to use the local political forces; the high-grade bookman never does, because of the ultimate danger to his business from such an alliance: because he knows that such aid inevitably becomes a burden on him and his business. No one regrets more than do the publishers and the bookmen interference in educational matters thru politics or politicians. But I know of no ground which justifies any general accusation against the bookmen of resorting to politics in the prosecution of their business. Probably such charges in nearly all instances originate in the attempt of an unsuccessful rival to account for his failure. Superintendents in search of competent teachers for an immediate vacancy seek the advice of bookmen at times because of their large acquaintance. If a bookman commends some worthy teacher, in response, isn't it ungenerous to intimate that he has other motives than serving the schools and a worthy teacher? Personally nothing gives me greater pleasure than to serve an excellent teacher or superintendent, because I feel that by so doing I am helping the schools—no one ever suggested to me that I had an ulterior business mo-

tive in such action. In my own case I am as careful in recommending teachers as I was when superintendent.

Fourth. Personal criticism of competitors for imagined business gain. The evil of "knocking" one another, in the slang of the day, is more or less prevalent in every line where there is intense competition. It occurs in the professions and thruout the commercial world. Echoes of such misrepresentation are heard from small people in college faculties. The business of publishing schoolbooks and selling them ought to be above and beyond this sort of thing. It is with great regret that I admit that this is not always the case. We are too prone to gossip and to criticize others, to the loss off our own dignity and the consequent impairment of our business. This practise, however, brings its own punishment. The lawyer who indulges in personal insinuations or reflections upon his opponent, fails to rise very high in his profession. The doctor of medicine who is prone to point out the weaknesses or incapacity of his rivals, loses caste. The practise comes from a low view of business ethics by the publisher, and from a futile tendency to magnify himself, which is sometimes a by-product of acute business rivalry. There can be no question that such habit is very objectionable, contrary to sound business principles, and should be frowned upon by all right-thinking people. Bookmen are, in effect, the attorneys of their respective houses; tho cordial in their treatment of each other, when not engaged in contests, the intense personal antagonism between rival bookmen in heated and long continued rivalries sometimes presents a demoralizing picture, when viewed by a spectator who is not conversant with conditions. Rival real estate agents buying a particularly coveted piece of property, newspaper reporters on track of an important item of news, all men engaged in a fiercely competitive business, go thru similar experiences. That the large majority of bookmen waging war against each other, living their lives in a small territory, nearly always in the limelight, can carry on their business efficiently and successfully, and continue to receive the respect, the confidence, the friendship of practically every high-class man or woman

with whom they come in contact in the schools, is a high tribute to the integrity, honor, and character of the profession.

When suitable opportunity to meet teachers and superintendents is given bookmen, only good can come from their visits. It is a maxim among bookmen that the busiest, ablest, and most prominent school officials and teachers are always the easiest to see. It is so rare when a bookman is denied an interview or prevented from prosecuting his missionary work, that such occasions are a negligible quantity. An insistent, ill-mannered individual may, it is true, place himself outside the pale of even the great courtesy of the school world. Of course, there are some narrow-minded, self-centered, all-knowing school officials who look upon the bookman as an unnecessary evil. Such men are rare; such attitude being reflected in their school activities elsewhere usually brings about a proper point of view. Trade, commerce, and science are interwoven together. Nothing is more anomalous, illogical, and unjust than antagonism between publishers, bookmen, and teachers. There should be complete sympathy, understanding, and concert between them. The bookman should express this policy in his actions at all times. Courteous, respectful, but not apologetic, anxious to perform his principal duty as salesman, reasonably jealous of the ethics and responsibilities of his profession, but conscious that he is a factor in the cause of education. To my mind, therefore, the bookman belongs properly in the system of education. He has a necessary function to perform. He will perform that function until other parts of the system develop, so that the work performed by him can be better performed by them. Then, in accordance with the law of progress, he will pass away. Until that time it is to be hoped that he will live his life with the agencies for good in the schools, and do his part towards reducing the number of his shortcomings, that thereby the efficiency and well-being of the schools may be increased.

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VII

THE MORAL AND RELIGIOUS INFLUENCE OF COLLEGES [1]

In a recent article in the EDUCATIONAL REVIEW [2] I discust the relation of the American college to scholarship, a subject which, considering its primary importance, seemed to me to have been too much neglected by recent writers on the college situation. It is the moral and religious influence of colleges and universities which has received very widespread attention on the part of newspaper and magazine writers within the last year or two. These discussions have, for the most part, been carried on in an obviously partizan and sensational spirit, and we may be excused, I take it, from giving them a large amount of detailed attention. That the student will encounter moral problems when he enters the college community may be taken for granted in advance. That the college will not be entirely successful in aiding the student to surmount all his moral and religious difficulties may also be expected. That there are genuine issues involved in the controversy over the moral effect of college training is in any case clearly evident. I wish in this article (1) to point out some of the common difficulties which the college meets in the moral control of its student, and (2) to suggest some ways of meeting these difficulties.

I

(1) It is to be remembered, in the first place, that the college student is in an entirely different moral position from that of the student in the common and secondary schools, in

[1] Part of a chapter of a forthcoming book, *The culture of religion*, Boston, 1912.

[2] January, 1912.

the respect that he is usually freed from home restraints of every kind, except such as follow him in the form of domestic memories and the weekly or bi-weekly letters from the home circle.

(2) Too often the relation between the student and religious organizations is severed when he goes from home into the college community. It will, perhaps, prove difficult for the clergyman in the college town, who already has a parish numbering, say, from two hundred to a thousand members, to interest himself in a large floating population of college students, especially if these students do not manifest special appreciation of such interest when it is shown. It is a fact that the message of the average clergyman, intended primarily, as it must be, for his local parishioners, does not always appeal very strongly to the college student, who is likely to imagine himself advanced somewhat beyond the point of view of the preacher seeking to minister to his spiritual needs.

(3) The larger colleges are today often found in cities or in towns of sufficient size to offer the various distractions and temptations encountered in such cities. I am far from believing that a checkered moral experience is a condition of moral strength, as some seem to hold. The view is contradicted by experience, is unpsychological and morally dangerous. Thoro academic training is a thing of incalculable value, but if it is gotten at the expense of moral principle and good moral habits it has cost more than it is worth. Happily, the alternative is not one which the student is very often obliged to face; but he ought never to be asked to face it.

(4) The student's moral and religious life is sometimes endangered, strange as it may seem, by the very studies which he pursues under the leadership of his various instructors. I do not myself believe that advanced studies logically invalidate a fundamentally ethical or religious view of the world. Nor do I believe that more than a very small proportion of competent scholars today believe that the results of their studies contradict such a view of the world. Nevertheless, instructors are not always fully aware of the precise nature of the intel-

lectual difficulties experienced by students, and are often, I fear, somewhat indifferent as to the eventual solution of those difficulties.[3] The present size and organization of many colleges, at any rate, do not facilitate individual conferences between students and instructors, even if both parties would welcome such conferences.

(5) The great numerical growth of colleges, and the floating character of the college population, naturally make for a certain isolation and anonymousness which is not always conducive to the most favorable moral development. The force of public opinion becomes enfeebled, everything else equal, in proportion to the heterogeneity and looseness of organization of the social group to which the individual belongs. The moral life does not thrive in isolation, as the church has had ample occasion to learn.

(6) Mr. Birdseye has recently called somewhat spectacular attention[4] to the alleged evil of student idleness. The amount of actual student idleness in American colleges, at any rate, is, according to my observations, practically negligible. Mr. Birdseye evidently means by idleness a lack of studiousness, concerning the existence of which there would, I suppose, be very little question, much of the students' time being taken up with one or another of a bewildering variety of student activities, such as athletics, college journalism, music, dramatics, club work, and social functions of every kind and degree. The real danger to student life, therefore, is not idleness, but the dissipation of energy, and a distorted view of the purpose and the opportunities of college training.

(7) There is a further danger in college life which is, perhaps, sufficiently general to deserve mention here. The increase of prosperity and the growing popularity of college training have had the result of making the college course more generally sought after than it formerly was. The consequence is that there is, perhaps, a larger proportion of men who attend college more because they have the means with which to do so than because they possess the intellectual and moral

[3] *Cf.* Proc. R. E. A., 1904, p. 126 ff.

[4] See *Individual training in colleges,* esp. chapter xxv.

qualifications which would suggest a scholarly career. The presence in large numbers of this type of college student has tended to generate and foster habits of extravagance formerly unknown in student circles. With this condition Greek letter societies have had no little to do. Many fraternities which formerly emphasized scholastic standing among their conditions of entrance have degenerated into social clubs to which wealth and social prominence are the main conditions of entrance. The extravagance common within the fraternities either enforces similar extravagance upon the less wealthy students, or else subjects them to the humiliation of not being able to enter into many of the privileges of student life in which they would otherwise naturally share.

II

These are some of the most important causes of moral decay, as I see them, to which the modern college student is exposed. The deleterious effects of these conditions upon the student's character may be summarized under the following heads, the causes and effects standing in the most complicated relations to each other: (1) A weakening of moral principle thru intellectual confusion; (2) positive immorality, like drunkenness, gambling, and licentiousness; (3) enfeeblement of the will, due to a comparatively aimless life and the scattering of intellectual and moral energies.

Unfortunately, the older methods of shielding the student's moral life thru the direct oversight of student conduct by the president and the faculty of the college has, on account of the enormous growth of student bodies, become extremely difficult. Formerly the college president, big of brain and of heart, was also the college pastor, and the trusted friend of every student on the campus. Today student bodies have become so vast, and the executive and administrative duties of the college presidency have become so exacting and numerous, that the college president, even if he possesses powers of spiritual leadership, has little opportunity to exercise them. The intimate touch of the instructor upon students has also

been considerably relaxed. This is due mainly to three causes. They are: (1) The increased preoccupation on the part of the instructor with the technical details of scholarship made necessary by the exacting demands of modern specialized investigation. The professor often regards teaching in the light of an interruption of the more interesting and more important work of research and writing. (2) The rapid multiplication of extra-scholastic student activities has assigned to the work of the professor a much more subordinate place in the estimation of the student than it formerly occupied. We shall return to this feature of college life at a later point. My only interest here is to show that, while the instructor sometimes regards teaching and interviewing students in the light of an interruption of more important activities, the student reciprocates by regarding the instructor pretty much in the same light: the instructor is no longer his intellectual and spiritual hero, in the sense of an older day, but a not overly-exacting taskmaster, whose periodical quizzes have to be prepared for in the quickest and least painful way known to coaches and tutors, and to the older heads among the students who have learned the various tricks of the college trade. (3) The elective system, with its multiplied studies and its frequent change of courses, makes the prolonged and intimate contact between any given instructor and his students very difficult. The elective system has certain other collateral effects to which we must return at a later point.

I do not mean to suggest, in what follows, a return to a paternalistic scheme of student government. This would be unadvisable for two reasons. The college student has arrived at an age when a degree of moral independence has become an intellectual and moral necessity. At any rate, the average student feels that he has arrived at years of accountability, and rather resents any authoritative interference with his private life. And this feeling, doubtless, has to be reckoned with. Nevertheless, among the various methods that have been suggested for dealing with the problem of the moral and religious welfare of students, the old method, modified to suit modern conditions, is still the most effective. No device or system of

devices can take the place of the personal influence of the college president and his teaching staff. The first and most imperative moral need of colleges, therefore, is that the gulf which is fixt in most of the larger institutions between students and teaching staff should in some way be bridged. "In the American university," says President David Starr Jordan, "it is all-important that the teachers should know the students, individually and collectively, their hopes, their aspirations, and their achievements." Very true. But how is this feat to be accomplished? The device which many institutions are trying— namely, the employment of additional instructors and the reduction of the size of classes—is, in my opinion, worse than useless, unless the additional instructors are men of scholarship, moral strength, and genuine teaching power. But this is, unfortunately, not always the case. What actually takes place is illustrated by a specific case which has recently come under my observation, in which a college class numbering about three hundred, taught by a splendid scholar and a strong teacher, was divided up into three sections of a hundred each, two of the sections being handed over to youthful instructors, one of whom was just a year out of college. Evidently, the last state of two hundred members of the original class was indefinitely worse than the first. The effect upon the teaching efficiency of a department of adding inexperienced instructors to the teaching staff has been mathematically figured out by President Hyde. "Let us start," he says,[5] "with a college which has a single professor for a department—a man of successful experience, whom it pays $2,500. Let us call the efficiency of that department's teaching 100. If you add one inexperienced instructor, whose efficiency in teaching is only half that of the professor, and if he does half of the teaching, then the efficiency of teaching in that department will be one-half of 150, or 75. If you add two such instructors, the efficiency of teaching in that department falls to one-third of 200, or 66 2-3. If you add four such instructors, the teaching efficiency of that department falls to one-fifth of 300, or 60. The instant an institution increases the proportion of poorly paid, inexperi-

[5] *The outlook*, August 21, 1909.

enced instructors to well paid, experienced professors, it has to face this law of diminishing efficiency. A bulky catalog may conceal this law from the uninitiated; but the law and its fatal penalties are sure to be there." The remedy is, of course, easier to suggest than to apply. The fundamental trouble lies in the fact that student bodies have grown faster than our ability to furnish competent teachers for them.

Even under present conditions, however, a number of things can be done to bring an efficient faculty into closer touch with the student body. A few of these may be mentioned here. (1) A friendly interest in students and their affairs shown by instructors would go far toward solving the problem of student government. Where classes are large the instructor can doubtless not follow up the life and history of each individual student under his care, but if he shows the proper attitude, students will seek him when they have difficulties. (2) It would be advisable for instructors to have regular hours when they are accessible to students. The plan of having special hours for given classes or sections sometimes proves effective in encouraging students to seek interviews. (3) The problem of a lack of interest in students, on the part of instructors engaged in research and productive work, has been partly solved in some places by dividing the entire faculty up into a research section and a teaching section, research instructors being relieved of a part of their work of teaching. This plan has obvious advantages from the point of view of the research function of a university, besides giving students the advantages of stronger teaching and a more personal interest, but we can not dwell upon these here. (4) Strong instruction on points of honor and conduct goes far towards clearing the moral atmosphere of a college community. I personally believe that most college evils can be dealt with far more successfully in this manner than we have heretofore dealt with them. It is well if the ground of conduct is explained, but this is not always necessary, and may even be debilitating. Young people's military instincts are strong, and the categorical imperative is as powerful in its appeal today as it ever was. What is the force of this imperative but the force of public opinion, and

what is more influential over the minds of men than public opinion, when it is forcefully and unambiguously exprest? Of course, all depends upon the personality back of the precept or demand. Here is where the general assembly hour has its important function. It is the college president's golden opportunity to make his intellectual and moral impress upon the college community, and, if he possesses the tact and the personality which belong to his high office, he can wield a far-reaching influence over every student within the reach of his personal and administrative power.

Aside from the personal influence of the college faculty, a number of measures may be employed to combat student immorality. The first of these is to stamp out, by legal measures and otherwise, such breeding-places of immorality as gambling-dens, saloons, houses of ill fame, and other disreputable places to which students may have access. This is an extremely important point, which is not always duly attended to. The college located in a town obviously has the advantage over the one located in a large city, in the respect that its moral environment is more completely under its control.

The extravagant confidence in the student honor system in many quarters appears to be due to the tacit assumption that you can increase the total amount of honor present in the student body by systematizing it. It will be found, however, that unless students' native moral ideas have been modified by specific instruction, their hatred of priggishness, and their ideals of mutual loyalty, are often more strongly developed than their ideals of classroom honesty, sobriety, etc., which are often found to be extremely feeble and hazy. The most effective way of controlling conduct is thru definite principles and ideals, and the best way of defining and strengthening principles and ideals is thru specific and forceful instruction. Young people are very ready to conform to moral standards, provided these exist and are made clear to them.

The problem of the dissipation of students' time and energy is a truly serious one. In many places extra-academic activities have come to monopolize such a large share of the student's time and thought, that studies occupy a very subordinate

place on his daily program. Of course, no one would think of eliminating these activities from student life. Some of them are educative, some are pleasant forms of relaxation, nearly all of them have a legitimate function of some sort. Nevertheless, the business of the college is scholarship, and when any other interest usurps the place of scholarship in any college, that college has lost its reason for being.

The situation is obviously a difficult one to deal with. One way of dealing with it is to limit student functions to certain days of the week. Another is to regulate them by issuing an approved list, past upon by a joint committee of students and faculty members. The remedy, however, must strike deeper, because the true cause lies deeper. People play in the absence of serious work, and there is very good reason to believe that the college curriculum does not always furnish students with sufficient work to keep them healthfully employed. Investigations carried on in various parts of the country have shown that the time which students put in in actual study outside class hours is disreputably small. This is especially true of institutions where social and artificial motives for study prevail, rather than utilitarian and practical ones. It is a fact well known to any student who has gone thru college with his eyes open that there are in every college and university courses in which the amount of study is practically negligible.

The two things which have done most to make this possible are the lecture method of instruction and the elective system. The lecture method still has its unique advantages in the hands of a skilful and forceful teacher. But when it degenerates into a mere dictation exercise, it becomes an unholy bore and a veritable intellectual death mask, smothering intellectual interest and the free play of thought. The one important object in all teaching is to provoke the self-activity of the student and to stimulate thought. The lecture method leaves the mind idle both during and after the lecture, at least until the inevitable quiz, when, by dint of a rapid review of notebooks and tutorial assistance, the brain is plastered with the necessary ideas wherewith to pass the examination.

The elective system competes strongly with the lecture method as a debilitating influence upon many students. Of course, no one would think today of going back to the curriculum of an older day, with its single-gage course of study for all students, irrespective of their tastes and capacities. The rapid multiplication of sciences and the great specialization of social functions have rendered the old system of complete prescription of studies hopelessly obsolete. Nevertheless, there are obvious difficulties connected with the elective system which must be frankly recognized, and, if possible, solved. It is interesting to observe that the very thing which constitutes the great merit of the system, namely that it permits the student to choose studies suited to his natural capacities and his future vocation, is also the greatest source of its weakness. Frequent observations have shown that the student's choice of studies, where it is not otherwise regulated, is determined to a large extent by exigencies of schedule, by the reputation of a course as a "snap course," by a desire for novelty, by the wish to be in the same class with certain other students, and by a large number of other considerations which are rather disillusioning to those who had expected the student at once to fall in with the lines of his natural genius or his future vocation. The student's course is thus frequently a rope of sand, with no relation of any study or stage to any other, and the possibility of finding his way thru the curriculum with a minimum expenditure of energy often affects disastrously the student's habits of study, sometimes resulting in the complete arrest of his intellectual development soon after entering college.

President Lowell has recently voiced [6] a somewhat general sentiment in favor of rehabilitating intellectual competition and rivalry in the college with a view to increasing the interest of students in studies. "By the free use of competition," he breezily reminds us, "college athletics have beaten scholarship out of sight in the estimation of the community at large, and in the regard of the college student bodies." The idea is a plausible one, and nothing plausible should be left untried in

[6] *Atlantic monthly*, June, 1909.

this time of serious academic need. I wish, however, to call attention to the fact that any plan to encourage competition, whether it be thru a system of honor and pass examinations, thru scholarship fraternities, or thru the conferment of any other distinction upon those excelling in scholarship, will tend only to aggravate some of the inherent difficulties of the elective system. In fact, fair competition is rendered well-nigh impossible under this system, for the reason that college courses vary greatly in difficulty, and that we have at present no system of examining and grading which is sufficiently objective to make the results of the competition a true indication either of the character or of the scholarship of the student entering into it. I have personally known students of feeble intellectual strength to make Phi Beta Kappa by carefully sidestepping every course which required genuine mental ability and continuous application, while other students of real mental energy and conscientious regard for their own ultimate good failed of election because they chose the more solid studies and the more conscientious and exacting instructors. This, I have good reason to believe, is not an infrequent occurrence, but an extremely common one, especially in coeducational colleges, and in colleges where a wide range of electives, including cultural, scientific, and practical studies, are freely offered. The tendency under such circumstances is for students to desert substantial courses, and to crowd into departments already weak, and becoming weaker as numbers grow, and as the proportion of lazy and incompetent students seeking the departments increases. To continue the athletic analogy, there can be no competition worth the name between two runners, if one is running on a smooth track, while the other takes the hills and valleys of the cross-country route; or between two men, one of whom lifts a weight of twenty pounds, while the other handles one of fifty. The worldly-wise athlete, at any rate, who is not exercising for his health, but for the laurel wreath, will always choose the smoother track and the lighter weight.

There are two ways out of the difficulty, both of them, I fear, more or less impracticable. The first is to have all ex-

aminations conducted by special examining committees, similar to committees holding civil service and other state examinations. The other way is to seek to establish more uniform methods of marking than are used at present, by comparing the marks on college records, and regularly notifying those instructors whose marks clearly exceed, say, the average mark made by students in other departments. This is not the place to work out a plan in detail, but there is reason to believe that a plan can be worked out with some degree of success. The committee having in charge the examination of college records and the warning of instructors would doubtless have troubles of their own. Still, I do not see how the situation is to be helped otherwise. At any rate, competition is out of the question when the competitors are not subjected to a common test.[7]

But what has the elective system to do with the moral welfare of the student? It has much to do with it. The moral life of students can not thrive in an atmosphere of idleness, or under conditions which permit play to take the place of serious work. Character is, indeed, not formed in solitude, but in the stream of the world, as Goethe grandly taught. But if a man allows himself to be swept along with the current of the world, he courts moral disaster, and (so swiftly and noiselessly does the dissolution of youthful character take place) moral disaster will overtake him ere he is aware.

Aside from positive immorality, and the distintegration of character, due to a comparatively aimless life, the weakening of moral principle due to intellectual confusion is, perhaps, the most serious source of moral and religious deterioration in college life. Here, again, we have to look largely to the college teaching force for the cause and the remedy.

I do not wish to precipitate here the rather unprofitable controversy as to the relative religious and moral influence of

[7] President Lowell has recently advocated the plan of holding final examinations on subjects at the end of the college course, similar to the examination for the degree of doctor of philosophy. See the EDUCATIONAL REVIEW for January. The plan is, in my opinion, an excellent one, both from a psychological and a practical point of view.

teaching in denominational colleges, on the one hand, and in the independent and state universities, on the other. According to my own observations, there are men of strong and of feeble spiritual power to be found in every institution, irrespective of its foundation or type. It would seem to be reasonable to believe that institutions directly responsible to a religious constituency with strong moral feelings and demands would be somewhat more careful in the selection of instructors than institutions not subject to such specific public opinion and demands. But it is also reasonable to believe that if a college president insists upon personal piety and religious zeal in every newly-employed instructor, he will have to sacrifice something on the side of scholarship and intellectual eminence. Which institution would be the gainer in the long run it would be very difficult to say.[8]

A good deal of notoriety has been given the published report of the Presbyterian College Board, according to which eighty-four per cent. of theological students who are candidates for the Presbyterian ministry come from Christian colleges, "founded more or less for Christian purposes, and which still maintain in part the idea of supervising the Christian and spiritual life of their students," while only one-half of one per cent. come from state universities, altho the latter contain approximately one-half of all the students of college grade in the country. The results of this investigation are, as they stand, striking enough, and may well make us pause to reflect on their meaning. Two remarks seem to be in order. In the first place, it is not entirely clear that the proportion of students who enter the ministry from a given type of institution is a complete criterion of the spiritual power and influence of that type of institution. What profession or vocation a person enters is often due to advice or suggestion from others rather than to the deliberate choice on the part of the person himself, based upon fitness. Second, it seems to be forgotten that the college itself is a selective agency; the tastes and interests of the student and his advisers determine the college to be chosen, just as truly as the college afterwards determines

[8] *Cf.* Proc. R. E. A., 1904, p. 125 ff.

the student's tastes and interests. In other words, the spirituality for which the college claims the credit may have existed in the student before he ever went to college, much in the same way as mechanical genius may exist in a lad before he goes to the mechanical college or the state university. The same fallacy is often committed in discussing the relation of college training to subsequent prominence. It is forgotten, again, that the college is a selective agency, and that the most ambitious and promising young men in every community, as a rule, choose the college career. Many men, doubtless, become prominent because of a thoro college training. It is equally true that some men, at least, become prominent in spite of their college training.

When due allowance is made, however, for these sources of error in interpreting the results of the investigation referred to, these results doubtless have some significance of the kind attached to them. The weakened interest in specifically religious work on the part of students in state universities is not due, in my opinion, to irreligious or anti-religious teachings in these universities, but, rather, to a number of conditions which are operative everywhere, irrespective of the question whether a given institution is supported by the state, by some religious denomination, or by private benefactions. It is probably not true that any essential difference exists between denominational colleges and state universities as regards either teaching or religious influence. It is a fact borne out by observation that freedom to teach and freedom to learn exist in practically all institutions of higher learning, irrespective of their constituency or affiliations. I am obliged to say, however, even at the risk of serious misunderstanding, that a good deal of what is taught under the name of modern thought, both in colleges under church control and in state universities, is not calculated to give the student truer views of life or a firmer grasp on the verities of the moral universe. This is a time of free investigation and criticism, and there has, doubtless, been much that sorely needed investigation and criticism. The part which higher institutions of learning have had in the reorganization of our thought and ideals has been, on the

whole, a large and noble one. But the destructive impulse is contagious and strong, and, when once thoroly aroused, is hard to allay so long as there is anything left to destroy. The remedy, however, does not lie in the restriction of academic freedom, but, rather, in more freedom. It is almost certain that there is more of the blood and thunder type of teaching in colleges in which a controversial spirit obtains, and in which more or less pressure is brought to bear upon instructors by their theological critics, than in colleges where every man is left free to teach his own views in his own way. A man of radical temperament will sooner or later settle down to a sober intellectual life, if he is not interfered with. The only thing that can be done is for an institution to refuse to employ a man who shows a naturally unsympathetic temperament and a lack of moral earnestness. This ought to be done in any case on purely pedagogical grounds. A flippant and trifling man of unsympathetic temperament will likely not make a success of teaching even the more intellectual branches, to say nothing of arousing in his students an enthusiasm for the best things.

Something remains to be said of specific religious influences which the college and university can exert over its students. These take a number of forms. Many institutions conduct daily devotional exercises, consisting usually of song, Scripture reading, and prayer. These, when simply and reverently conducted, can not but be a source of spiritual uplift to those who attend them. Many institutions maintain regular church services, conducted either by a resident clergyman or by non-resident college preachers. These, too, can not but be helpful, provided the preachers are men of genuine spiritual power, men quite accustomed to student audiences, and who are not mistaken about their special mission in the college. Vesper services, simple and beautiful, made up largely of sacred music and, perhaps, a brief address, are found in many places, and are always popular. In order to afford a more intellectual view of religion, many institutions invite special lecturers, either for single lectures or for series of lectures, on religious subjects.

Finally, the college may maintain courses or even depart-

ments dealing with religious subjects, which students may attend for regular credits under such restrictions as the institution may impose. In the case of such state universities as do not feel free to introduce such courses or departments, Bible chairs or Bible houses are often founded and maintained by religious denominations, students usually being allowed a limited amount of credit for work done in such institutions. These chairs or Bible houses are always extra-mural foundations, and have no affiliation or connection with the universities, except such as academic courtesy and the intellectual and spiritual interests of students may suggest or demand.

The question has often been raised as to the right of state universities to offer instruction in religious subjects, such as Biblical languages and literatures, religious art, ecclesiastical history, and the like. The question is, of course, primarily a legal question, and has to be settled in the various states in accordance with such legal provisions and court decisions as may exist. I only desire here to urge the distinction between religious teaching and denominational teaching, and to insist that laws forbidding the latter do not necessarily forbid the former. The state university, in my opinion, has the whole realm of human knowledge and culture for its province. It may be well to remind those who so strongly insist in their demand that religion shall be excluded from state institutions, that some of the greater state universities offer nearly every course offered by theological seminaries. There is hardly an important state university in the country that does not offer courses dealing with some phase of the history or philosophy of religion, as an examination of the catalogs of these universities will at once reveal. The only demand that can be made of these universities is that the teaching in these subjects shall be objective and impartial, and there is absolutely no reason for believing that it is not.

But, the question may be asked, is not such instruction calculated to deprive the studies concerned of their moral and religious value? It is certainly possible that it may do so in the hands of an awkward and pedantic instructor, just as any other study may degenerate into a mere formal and didactic

exercise when the instructor lacks insight and teaching power. I cannot do better than quote on this point the excellent words of Professor Bacon of Yale University: "My contention is that it is just by making the courses purely—but not for that reason coldly, or unsympathetically—scientific, objective, critical, and historical, that they will become most surely effective in the interest of genuine religious culture. The religious culture will necessarily be incidental, and not direct; it will be such as each student's own heart prompts him to draw from it in the privacy of his own reflection. . . . True, the subject-matter is one which requires, more than all others, sympathetic and spiritual insight in the teacher. That is true with all teaching of literature. . . . How can English literature be taught by mere analysis? And if so, in how much higher degree must this be true of the literature of religion? But what do we mean by science? Is it scientific to grasp the shell and miss the kernel? Is it scientific to be unsympathetic with the essence of the subject-matter? . . . My colleagues, it will be almost as much by what you do not say as by what you say, that your classes will get the deepest benefit in your courses in Biblical science. Let the aim be always simply and purely scientific, and the edification be incidental. Permit the student, each for himself and in his own way, to apply to his own spiritual need the inspiration that may come to him from the glory of the view of God midway in his spiritual creation." [9]

I fear that I may have given a rather somber impression of the college, and of the influence of the college upon the moral life of students. I have, however, not meant to do so. There is nothing about the college situation that is essentially hopeless or beyond remedy. My only interest has been to suggest ways by which the college student would be enabled to make something like the same progress in his moral and spiritual growth that he is expected to make in his physical and intellectual growth. This ideal, great and appealing as it is, seems seldom to be clearly conceived. But there is certainly nothing unreasonable or impossible about it, and it is an ideal which will grow upon us increasingly as we come to look

[9] Proc. R. E. A., 1904, p. 134-35.

upon the college, not as a place for the acquisition of information merely, but for the education of the whole man in all the phases of his complex nature. The college still has a sacred function which, one hopes, will not be obscured by the practicalism and the professionalism which are seeking to assign to it an entirely subordinate place in the educational scheme. As President Hyde has forcefully said: "For combining sound scholarship with solid character; for making men both intellectually and spiritually free; for uniting the pursuit of truth with reverence for duty, the small college, open to the worthy graduate of every good high school, presenting a course sufficiently rigid to give symmetrical development and sufficiently elastic to encourage individuality along congenial lines, taught by professors who are men first and scholars afterwards, governed by kindly personal influence and secluded from too frequent contact with social distractions, has a mission which no change of educational conditions can take away, and a policy which no sentiment of vanity or jealousy should be permitted to turn aside." [10]

EMIL C. WILM

HARVARD UNIVERSITY

[10] Quoted by Butler, *The meaning of education*, p. 131-32.

VIII

DISCUSSIONS

EXPANSION OF THE BUREAU OF EDUCATION

The expansion of the Bureau of Education, at present so much talked of, is not a new idea. The broader scope was in the minds of its founders, and, altho the original bill for its establishment, which was engineered thru the House by James A. Garfield, at that time Member from Ohio, called for a bureau only, it was created as a Department of Education, and on that basis maintained from March 2, 1867, to July 1, 1869, when it was made a bureau in the Interior Department. Party politics had much to do with the change, but there were other causes: among these the reluctance to multiply executive departments, and concentrated interest in the problem of illiteracy. The latter seemed to the congressional mind, at the time, merely a problem for statistical treatment, important but limited in scope.

Fortunately, however, the law under which the bureau was created had been drafted by men of wide experience in educational matters and conscious of their varied relations to the public welfare, and, while certain duties of the office were specifically prescribed, large discretion was left to the Commissioner as to the means by which the office might fulfil its purposes.

The appointment of Dr. Harris as Commissioner brought great prestige to the bureau, because of his own distinction, and the talk of expansion was soon revived. It is an interesting fact that, while Dr. Harris himself took little or no part in the talk, the first and, so far, only successful method of expansion originated with him. Immediately upon assuming charge of the office, he took measures to secure the appointment of a specialist in foreign systems of edu-

cation. This was followed at short intervals by similar efforts in respect to other divisions of the general subject, with the result that, during his administration, four such positions were created by Congress. To this number Dr. Harris made several additions by special assignments of expert members of the regular staff. This action was taken without extraneous help, in pursuance of what seemed to Dr. Harris the natural order of growth in the office. For following the collection of information there must come sifting and interpretation, and, as a consequence, ever increasing relations, national and international; hence, the necessity of a body of trained specialists, thoroly familiar with the history of education and with the genesis of its particular problems.

More recent efforts at expansion have all followed this course blazed by Dr. Harris. The position of specialist in higher education was created by Congress at the solicitation of Dr. Brown, who also obtained an appropriation of six thousand dollars for two special investigations, the sum to cover salaries of the expert investigators and contingent expenses.

The specialties created by Dr. Harris, and others that he contemplated, are significant. As his friends well know, Dr. Harris was a firm believer in the genius of our institutions. He recognized the distinct province of the Federal and state governments in education, as in other public affairs, and he deprecated any attempt on the part of a government bureau to duplicate state functions. It was this discriminating judgment that determined the specialties which he fostered; they pertained without exception to matters that belong specifically to the Government, or that transcend state limits and involve principles of universal application. Such are the administration of the treasury grants for agricultural colleges, for which one of his specialists was secured; questions of international relations requiring an understanding of the institutions of other countries; problems of race education and of exceptional children, all of which were cared for by the specialists appointed during his official term.

With respect to the educational activities of the United

States, Dr. Harris regarded the bureau as a medium of exchange, intended to bring each unit of the country to consciousness of its progress and its needs. He was concerned further to make the bureau a coordinating center for all the bodies, public and private, engaged in the work of education. The nature and possibility of such coordination is illustrated by the reports of the Committee of Ten and the Committee of Fifteen, which have exerted an influence thruout the country, and have had wide foreign circulation.

It is needless to rehearse here the part which Dr. Harris's councils had in the formation of the committees named, or the help which he drew from the office in furtherance of their work. The same desire to combine and conserve forces is illustrated by the effective interchange of service between his own bureau and the Census Office and Labor Bureau during his administration. Expansion, cooperation, and economy of means were guiding principles of his official action. They were not formally set forth, but consistently illustrated by the course he pursued. Once, and once only, I believe, Dr. Harris gave public expression to his ideas of the expansion of the office. The occasion was an informal discussion of the subject before the National Council at the St. Louis meeting of the National Educational Association (1904). The question was raised unexpectedly, and, after several members had voiced their views, there was a call for Dr. Harris. It took a second call to bring him to his feet, when he said in substance, that he had no very definite ideas about the expansion of the bureau, excepting in a single direction. He thought Congress should provide for the appointment of commissions to deal with educational matters of national moment, such as plans of education in our outlying possessions, and the comparative value of American and foreign scholastic degrees. He believed the bureau should be effectively represented on such commissions, and thereby increase at once its advisory functions and its dignity. I have been forcefully reminded of this suggestion by the Pan-American Commission, which was recently assembled in the Washington office of the American republics, and which

considered among other matters that of interchanges between the universities of Latin-America and those of the United States.

It was at another meeting of the National Educational Association, on the occasion of an animated debate over the project of a national university, that Dr. Harris advanced the strongest argument for the expansion of the National Bureau. In the white heat of discussion, he flashed out this memorable saying: "That government is incomplete which does not include representation of the ideal interests of the people." With instinctive consciousness of this fact the founders of the bureau were careful to leave its scope undefined, so that it may freely expand according to circumstances.

It was in Dr. Harris's mind to write out his conception of the representative function of the bureau, as well as of the commission plan already referred to, but, alas! his time and strength were exhausted by routine duties, so that, as in the case of many other disinterested officials, the final councils of experience were never uttered, and remain only as fading memories in the minds of his associates.

The country is facing great social and industrial problems that call for new purposes and new agencies in education. Support for the efforts to equip the bureau for this enlarged service may confidently be invoked in view of the vision of its founders and the rational insights that guided its course during Dr. Harris' memorable administration.

ANNA TOLMAN SMITH

WASHINGTON, D. C.

UNPROFITABLENESS

"But the lesson which Chiaro had now learned, of how small greatness might win fame, and how little there was to strive against, served to make him torpid, and rendered his exertions less continual."—D. G. ROSSETTI: *Hand and soul.*

Chiaro was an aspiring painter of Pisa, who when he gazed upon the works of the master, Giunta Pisano, said within himself, "I am master of this man." Thereupon he asked not

to be Giunta's pupil, as he had intended, but walked to his home in joyousness of spirit. As he recalled the stiffness of Giunta's figures, and saw in his mind the ungraceful lines and feebleness of drawing, he wondered how such work could gain praise. Then the thought came to him that fame is easily won, if these paintings could be famous—so easily that there was no need to him of exertion. Thus, altho he could have painted superior pictures, his discovery that strong effort is not necessary for the attainment of fame made him torpid, and rendered his exertions less continual; therefore he produced no work of art.

I once knew a teacher who, having enjoyed unusual advantages, began his career with enthusiasm and the conviction that success is to be attained only thru hard labor and exalted thought. But before many months went by, he came into contact with books that had been accepted by the thinking world as criticisms, and in them he found, so it seemed, little more than he himself had long known or felt intuitively; he also grew to know students of all classes—from those who did not care for learning to those who had a passion for knowledge, and in them he found regard for men who asserted and pleaded not, and esteem for them who cast all thought into hard molds; and lastly he became acquainted with men who had been judged worthy of the title of teacher or of critic, and in them he found prosaic recognition of facts, not power of imagination and truth. So he soon realized that print is not a mark of excellence and that he who writes intricate and clever verbiage can meet with praise; and he came to believe that merit is not the touchstone to fame. Then he too said within himself, "I am master of these; I can see more clearly." As with Chiaro, knowledge that on the road to fame there is little to strive against increased his indolence, until it became a disease, consuming all his enthusiasm and eating away his conviction that success is to be attained only thru hard labor and exalted thought. He is now one of the herd of those that drive our youth along familiar roads, and are in turn driven by the shepherd of the unthinking, Convention.

So it often happens that they who have a light, perceiving that it is unnecessary to a comfortable journey, snuff it out in costly ignorance; and they who have been wont to gaze at the stars look upon the roots and stalks of plants, seeing not the flowers.

Alas for him who looks upon himself with comparison in mind to those who have been praised; for his duty lies not in mere satisfaction in reaching heights already reached, nor in climbing to them as others, however expert mountaineers, have climbed; but in scaling heights not scaled and attempting heights not attempted.

Alas, too, for those who come to believe that virtue lies in attainment and not in struggle; for they, like Chiaro, shall become torpid, and their exertions shall be rendered less continual. Their wages shall be unprofitableness.

HAROLD G. MERRIAM

BELOIT COLLEGE

To the Editor of the EDUCATIONAL REVIEW:

In the EDUCATIONAL REVIEW for January I find a profane remark quoted as made by me. Mr. Bardeen, who wrote the interesting article in which the quotation occurs, undertook to give the substance of a conversation which took place fourteen or fifteen years ago. He certainly intended no misrepresentation. But in these years he has evidently forgotten my words. The remark he quotes was not mine and does not represent either my thought or my method of expression.

FRANCIS HOVEY STODDARD

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IX

REVIEWS

Principles of education—By FREDERICK ELMER BOLTON, Ph. D. New York: Charles Scribner's Sons, 1911. 781 p. $3.00.

The above book is the outgrowth of lectures the author has been delivering for several years to teachers' institutes in different parts of the country, and to his classes in education in the State University of Iowa.

The work, as a whole, is the resultant of a wide range of reading along educational, biological, psychological, and literary lines, and it is a reflection of the various shades of opinions gathered from many sources, which the author has skilfully wrought in with his own views in each chapter. In making quotations from other writers, the choicest thoughts and most striking passages have usually been selected, and enough of them under each heading to give the narrowly read student a good outline, at least, and very many clear ideas of what each author quoted thought on a certain phase of education. Those who have not read extensively along these lines of thinking, particularly of the abnormal and deficient mentality types, the physically weak and defective, will find much valuable material in this volume, a sort of epitome, or handbook, on a great variety of subjects, such as doctors, neurologists, open-air, and other one-sided fractionalists are wont to indulge in—all fully and fairly represented in the various chapters. However, between the extreme opinions of all the diverse thoughts that fractional specialists indulge in and magnify, the author very wisely preserves the balance, and if at times he gets over plumb, he is pretty sure thru his level-headedness to adjust himself and assume a tenable position. Some of the most extreme and erratic views of various

writers he can not subscribe to, and in such cases he does not hesitate to express very emphatically his disapproval.

The shadow of Herbert Spencer certainly enveloped the author in his earlier days, and he has not yet entirely freed himself from that incubus. He can not yet stand outside and see the excellencies in Herbert Spencer's theory of education as well as his defects. As a matter of fact, Herbert Spencer never in his anthropological studies came down into civilized society, except to touch it occasionally here and there. It is hardly an over-statement to say that his investigations did not reach to the middle ages, or rather to the beginning of the Christian Era. He virtually tabooed the study of history, unless it be of the primitive races. And an old bachelor as he was, it would have been a novel proceeding to have seen him give a lesson to upper-grade school boys and girls on "How to raise a family" from the biological and eugenic standpoints. Herbert Spencer lacked preeminently what is called the judicial cast of mind. In his autobiography he states that he would not read authors whose opinions ran counter to his own preconceived notions. Our author, in this respect, differs widely from Mr. Spencer. He usually views a subject from all sides.

At present Professor Bolton is almost swept off his feet with the ideas of outdoor activity till the child is ten or twelve years old before it ought to begin serious school work, and then it should be that of good animal exercise rather than that of a child that has its part of the world's work to do. On this point, an analysis of the different pronounced types of children would have cleared the way for saying what each large group of children should be chiefly engaged in doing, and the larger kind of work each should have during certain periods of physical and mental development. As compared with Rowe and Chancellor, he sees some of the advantages in making some things in each subject automatic or habitual, but with their clear-sightedness he does not yet perceive so exactly where and at what periods in the pupil's growth such training should be undertaken and carried forward successfully. His ideas on learning a foreign language, or in learning languages in general, are advanced and are sound so far as speaking

these languages are concerned. In respect to English, he almost scares himself at a shadow and rushes to such an extreme that one wonders when the child will ever begin to look at the material composing a sentence in an intelligent manner. Going, however, to the other end of the line, his remarks on much of the silliness of the kindergarten practises are very pertinent. No writer of recent years has punctured a few of the wind-eggs of that fetish more scientifically or skilfully than he. The kindergarten folks are so prone to put into it things and interpretations that are so far-fetched, symbolical, and mythical, that it is really refreshing to find one who points out some of the absurdities that form much of the stock in trade of an over-inflated cult. Kindergarten instruction needs to be put on a modern basis, and the fact emphasized that all of the wisdom of the world did not vanish from the earth when Froebel died.

It should not be inferred from anything herein stated that the book as a whole is not a valuable contribution to educational theory and practise. On nearly every subject the author's views are sound and are founded on principles that are well established, or the preponderance of evidence is in their favor. Nearly all of his suggestions on teaching are in accord with the very best theory and practise of present-day knowledge.

As an entirety this volume fills a place in educational literature not heretofore occupied by any other American work, in that the author has selected the very best from many of the modern authorities and presented their views under the different headings with rare skill and discrimination. In this respect, it is an encyclopedia of educational information on a great variety of subjects in which nearly everything of educational value is presented from various angles. However, one enjoys the author's views perhaps more than the quotations from the distinguished writers whom he cites. There is hardly a prominent educational idea that has come into the foreground during the last quarter of a century that has not been presented or distinctly referred to by Professor Bolton. He marshaled his material well, and in no instance does he

appear to be swamped in it. Yet, after all, the volume would have been much stronger had only a few quotations been inserted and a fuller presentation of the author's opinions been presented. So many of the chapters run along parallel lines that it was practically impossible to keep from repetitions in thought, if not in language, which swelled the size of the volume; but, after reading it thru, no one will regret this.

The reviewer must not be understood in any sense as detracting from the merits of this volume. It is a monumental educational treatise within itself. The author's style is clear, forceful, and simple. No one can mistake his meaning, and the same amount of information can not be obtained from a dozen of our best books. The choicest thoughts have been picked out of each author, prest into a compact space, and each extract estimated at its cash value.

Every one at all interested in educational problems should own this book and study critically the twenty-eight chapters composing it. My copy is well annotated, this being my practise when reading an interesting book. Comments, catchwords, and signs along the margins of the pages indicate how I have treated this contribution to the educational literature of our country from one of its most faithful and conscientious teachers. The schoolman needs it on his desk along with his dictionary.

J. M. Greenwood

Superintendent of Schools
Kansas City, Mo.

History in the elementary schools: Methods, Courses of study, Bibliographies—By W. F. Bliss, B.S., M.L., Dean of the Normal School and Head of the Department of History, State Normal School, San Diego, California. New York: American Book Company, 1911. 214 p.

This book contains topics, questions, and outlines for the eight grades of the elementary school, references to readings for pupils, references to readings for teachers, some examples of dramatization and of story material, and some observations on methods of conducting the recitation. For the first four grades the subject is primitive civilization; for the fifth and

sixth grades, with children "passing thru the so-called 'medieval' stages of development" (p. 15), the topics range from Charlemagne and his work (p. 37), to The American Revolution (p. 48). Up to this point the aim is not to present a connected story of any particular people, but to convey, thru glimpses of many peoples, impressions of general cultural stages. Chronological continuity is, therefore, neither sought nor desired. Illustrations for the second grade, for example, are drawn from the experience of "early Aryans," ancient Egyptians, Hebrews, Phœnicians, "modern Africanders," Eskimos, inhabitants of Japan, the Philippines, India, and Hawaii, North American Indians, and white men of early American history (p. 27). Even at the end of the course for the sixth grade the gap between the settlement of New England and the American revolution is bridged only by The Age of Louis XIV, and The French Revolution and Napoleon Bonaparte (p. 47, 48)! For the seventh and eighth grades, with American history as the subject, the course changes somewhat abruptly to a systematic survey based upon McMaster's *Brief history of the United States.* The references for pupils are, in the lower grades, to children's books, good, bad, and indifferent as history, and, in the upper grades, mainly to standard textbooks. The references for teachers are well chosen, and the observations on methods of conducting the recitation, while brief and therefore necessarily general, are clear and helpful.

HENRY JOHNSON

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An extraordinarily complete and scholarly study, mathematical and philosophical in character, is presented by Luigi Botti in his stout volume, entitled *L'Infinito.* Students of the philosophy of mathematics will have to reckon with this book. (Genoa: A. F. Formiginni, 1912. 529 p. 6 liras.)

Mr. C. E. Linebarger, Instructor in the Lake View High School, Chicago, has made in very convenient form a *Laboratory manual of physics* for the use of students in the sec-

ondary schools. The arrangement of the material is excellent, and each experiment is carefully described and well illustrated. (Boston: D. C. Heath & Co., 1912. 175 p. 80c.)

The *Elements of qualitative analysis,* by Professor Stieglitz of the University of Chicago, is divided into two parts, one theoretical and the other a laboratory manual. Both are well ordered and well arranged for textbook use. (New York: Century Company, 1911. 311, 151 p. $1.40, $1.20.)

The science of botany is calling forth new textbooks at a rapid rate. A new *Practical course in botany,* by E. F. Andrews, is an attempt to bring the study of botany into close touch with practical affairs by bringing out in connection with each topic its relations to agriculture, economics, and public health. (New York: American Book Company, 1912. 384 p. $1.25.)

Productive farming, by K. C. Davis, is the title of an elementary book which may be used in connection with short courses in agriculture at farmers' institutes and colleges of agriculture. (Philadelphia: J. B. Lippincott, 1912. 357 p. $1.00.)

One is reminded of the famous book *Cotton is king,* which played an important rôle in this country sixty years ago, by an interesting school reading book called *The story of cotton,* written by Professor Brooks of Trinity College, Durham, N. C. As a supplementary reader the book has much value, not only in cotton producing states, but elsewhere. (Chicago: Rand, McNally & Co., 1912. 368 p. 75c.)

There are so many textbooks in political economy nowadays that a newcomer has to be marked by unusual excellence to gain favor. It does not seem to us that *Outlines of political economy,* by Professor S. J. Chapman of the University of Manchester, has any features to commend it particularly. (Longmans, Green & Co., 1911. 413 p. $1.25.)

German epics retold is an attractive little volume by M. Bine Holly of the University of Wooster. The book contains ten of the most important epics of the Old and Middle High German periods of German literature. (New York: American Book Company, 1912. 336 p. 65c.)

X

NOTES AND NEWS

General information

Some of the leading newspapers in France and in Great Britain have recently been making systematic inquiry as to the extent and accuracy of general information on matters of supposedly common knowledge and more than usual importance. The published results of these inquiries seem rather extraordinary; but when one remembers the dominance of the daily newspaper, with its banality and inaccuracy, it is not difficult to understand that general information has gone the way of some other good things.

An inquiry of this kind recently made in France reveals some astonishing things. When young soldiers have been a short time with their regiment, it is customary for the officers in command to set before them a list of questions for the purpose of ascertaining whether any of the soldiers, and if so which, are of a sufficiently superior grade of intelligence to warrant their promotion later on. Those soldiers who make a poor showing in this test are compelled to take courses of definite instruction. Inasmuch as all of these soldiers have been for a longer or a shorter time in an elementary school, one would suppose that their information on matters of national interest and importance would be reasonably complete. Unhappily the opposite is the case. For example, one of the questions set to 50 French soldiers recently was: Who is Joan of Arc? 37 knew who she was in a more or less hazy way; 5 gave absurd answers; and 8 were absolutely ignorant. To the question, Who was Napoleon I? 11 were able to make no response whatsoever. Of these, one had been five years in school, one six years, and one seven years. One worthy young

military genius answered that Napoleon I was an emperor of Russia. It may perhaps be said that Joan of Arc has been a long time dead, and that even Napoleon I is no longer living. When we turn to those questions bearing upon present problems, the results are not better, but worse. For example, 12 of the 50 soldiers were absolutely ignorant as to Alsace-Lorraine and 10 were dumb when asked, What is Morocco? One young Frenchman, who had been five years in school and whose mind evidently has great possibilities, replied that Morocco was a foreign power in Italy. Nine of the 50 soldiers were absolutely ignorant of England, but only two failed to answer the question, What is an aeroplane?

As the French newspapers are saying, these revelations and results are pitiful. No one would believe without the evidence before his eyes that there could be in France today 11 young men out of 50 who are ignorant of the War of 1870, and 25 out of 50 who know nothing of the existence of the great Revolution of 1789.

Similar tests conducted in England produced equally deplorable results. We should like to see tests of this kind fairly conducted in the United States. We should be surprized if conditions here were not found to be quite as bad as they are in France and in England.

The lesson is fairly plain. The present generation in each of the great civilized nations of the world is growing up in reasonably complete ignorance of those facts, events, and principles upon which civilization rests. This is a pretty serious risk to run.

Active members of the National Education Association

The recent publication of the *Proceedings* of the San Francisco meeting of the National Education Association makes it possible to draw some instructive inferences as to the recent political activities which have distinguished the meetings of the Association. It appears from published records that a grand total of 922 active members were registered at the San Francisco

Convention in July last. Of these, only 383 were women, 539 being men.

Of the 922 active members registered, 478 were former active members and 444 were enrolled for the first time at the San Francisco meeting. Of the 444 new enrollments, 255 were women.

While 922 active members were registered, only 602 attended the annual meeting, and of these, 296, or nearly one-half, were newly enrolled members who had never been connected with the Association as active members before the week of the Convention. Another significant fact is that while 345 men who had been former active members were enrolled, 129 of these did not attend the annual business meeting of the Association.

The inference is clear. The officers of the Association were chosen and its general policies determined, to all intents and purposes, by a group of people who met as members of the Association for the first time. It is just as well to keep this fact prominently before the public and before the Association itself until action is taken that will make it impossible to pack an annual meeting for political purposes.

The Annual Report of the Secretary shows in very illuminating fashion just what becomes of active memberships that are taken out for political purposes.

EDUCATIONAL REVIEW

APRIL, 1912

I

ON SOME CURRENT EDUCATIONAL CRITICISM[1]

These are lively times in which we live. The unanimity of opinion that obtained among our forbears in the savage or the barbarian stage of culture has gone, apparently forever. Political, industrial, social, and religious insurgents are found on every hand, and they are filling the earth with their raucous voices. In the world of education also there is great unrest. Critics, lay and professional, many of them uninformed, many others misinformed, and a few, not many, well informed, are animadverting upon any and all phases of educational endeavor. Opinions widely varying, oftentimes contradictory of one another, are exprest concerning the meaning and purpose of education, concerning the culture-materials and the method of procedure by which the aim may be wrought out; and concerning the administration of kindergartens, elementary schools, secondary schools, normal schools, colleges, universities, trade schools, professional schools, schools secular and religious, and schools public and private. Surely, within the last few years we have had enough educational advice to last an ordinary planet for centuries, and the overconservative man is ready to exclaim to the advisers in the language of Job: "You make me weary," while the radical man rejoiceth

[1] Presidential address, delivered before The Texas Academy of Science, at The University of Texas.

that the atmosphere of insurgency is invading even the most time-honored academic haunts.

Now, in the midst of this educational confusion, which, in the judgment of some good people, practically amounts to chaos, what should be the attitude of the man of science, who, as Huxley says, "is one who simply employs trained and organized common sense, whose methods differ from common sense methods only so far as the guardsman's cut and thrust differ from the manner in which the savage wields his club, whose vast results are obtained by the use of no mystical faculties, by no mental processes other than those which are practised in the humblest and meanest affairs of life." [2] It is certainly to the man of science, the man of sanity whose opinions regarding any matter are formed only after a careful investigation and comparison of the facts involved, whose judgment is not warped by prejudice or self-interest, the man who has sense enough to get at the correct valuation of things; I say it is to this man that the educational world must look for a rational settlement of our present disturbed condition.

I have just now intimated in a general way what should be the attitude of the scientific man in these days of educational contention; but I deem it worth while to spend a short time in translating these general into somewhat more specific terms.

In the first place, the scientific man of the twentieth century should be a man who knows; he should be far better informed than his predecessors of ancient and medieval times. He should realize the force of Lord Bacon's contention that "*Antiquitas seculi* is *juventus mundi,* and that these times are the ancient times, when the world is ancient; that those elder generations fell short of many of our present knowledges; that they knew but a small part of the world, and but a brief period of history; that we, on the contrary, are acquainted with a far greater extent of the world, besides having uncovered a new hemisphere, and we look back and survey long periods of history." [3]

[2] Huxley's *Science and education, Essays* (Appleton, 1898), p. 45.

[3] Quoted from article on Lord Bacon by Von Raumer in Barnard's *English pedagogy,* p. 86.

The scientific man now needs that kind of intellectual equipment that makes him the heir of the ages, that renders him competent to sit in judgment, and that gives him the right to express, without apology, the convictions he has reached. When a large number of men so qualified shall have turned their attention to educational matters, many vagaries with which the popular, and even the professional, mind is afflicted, will enter upon the sleep that knows no waking, and the time will speedily come when the man armed with only superficial knowledge, gathered at odd times on the run, will be accorded no respect whatever, and when, the crust of his stupid egotism having been broken, he will no longer have the courage to present, with any degree of assurance, his half-baked notions. On the coming of that day there will be great rejoicing in the world of learning, for the publication of articles, bulletins, and books for which there is neither justification nor excuse will then be placed under the ban. (I regret to say that the coming of that day will, in my judgment, not be enjoyed by us or by any of our contemporaries.)

Again, to be intellectually qualified to deal with educational problems, the scientific man will realize how tremendously complex is the question of education. As the life of man becomes more and more varied, as more intricate and more difficult phases of human activity appear from age to age, so the education which obtained in the days of the primitive man, simple in philosophy, in means, and in method, has, by slow processes of evolution, lost its simplicity, and it is now struggling to respond to the demands that grow out of the complex conditions of modern society.

It is just here, in the evolution of the school, to meet changed and changing conditions, that the services of the man who knows, are of the greatest value. Perhaps the most imperative need at the present day is the development of the truly scientific spirit among those charged with the direction of educational institutions; for it is only that spirit that can think into unity the many diverse phases of the problem, and can assign to each phase its proper place and rank.

The fundamental defect in pedagogical thinking has been

the overemphasis given to some one feature of human development at the expense of other features no less important. It is the scientific man that thinks whole thoughts, that rare form of thinking for the want of which the Greeks, as Socrates pointed out, lost the very foundations of intellectual and moral progress. It was a similar mistake made during the Middle Ages, when education was conceived to be confined to otherworldly interests exclusively. It was again shown by the humanistic movement, which, notwithstanding the incalculable blessings which it brought to the world of learning and the world of action, itself became enfeebled by lifting into undue prominence the linguistic phase of education, or rather, by refusing to recognize other phases just as necessary. A similar error is made in our own day by those who clamor for only practical, utilitarian policies to dominate the school.

Now, it is the man of science who, endowing and fortifying himself with the truth that is revealed by the study of the world's best thought and by first-hand investigation of education as it actually exists today, will be able to seize upon the elements of permanent worth in all of these conflicting theories.

The opinion is here advanced that, as a result of his study, he will contend that, as there are all-enduring elements in human nature, there are also certain enduring forms of human culture, forms which the accident of occupation or nationality should not eliminate; that every human being born into the world is born with the intent that the possibilities of humanity may be realized in him, and that, therefore, any educational policy which tends to convert man into a mere work animal, that seeks to peasantize him, that aims to professionalize him without humanizing him, that labors to produce an animal like unto a strong beast of the forest, or that seeks in any way to abridge opportunities for the full fruitage of his entire human nature, is to be condemned, and that without remedy.

Is it not safe to conclude, therefore, that knowledge is the first essential attribute of the man of science, enabling him to keep his balance in the midst of educational upheavals, and to maintain his serenity of spirit in the midst of a perfect babel of voices? Surely, this is a lesson that democracies should

learn, that knowledge, real knowledge, born of the travail of thought and experience, differentiating, as it does, the physician from the quack, the lawyer from the shyster, the statesman from the demagog, is likewise the first indispensable element of educational safety and progress.

In the second place, the attitude of the man of science should be marked by a strong and a ready sympathy. To the normal mind the whole wide world is full of valuable and interesting physical and spiritual phenomena, and it would, therefore, seem to be obviously foolish, not to say wicked, for an educational worker to entertain feelings of indifference or hostility towards workers in reputable fields other than the one in which he, himself, is engaged; but alas, in education it is too often the perfectly obvious, the self-evident, the axiomatic that must be proved. It is for the want of this actual sympathy that the elective system in colleges was for years the storm-center of discussion. Upon occasions without number natural scientists and classicists engaged in debates in which there was manifested far more heat than light, and all for the want of an intelligent regard on the part of each debater for the subject represented by the other. The narrow specialist who loses touch with experts in other branches of learning is cultivating that mental blindness which, according to the late lamented William James, causes one to be forward in pronouncing on the meaninglessness of forms of existence other than his own, which prevents him from tolerating and respecting those other forms, and which renders him unable to realize that neither the whole of truth nor the whole of good is revealed to any single human being.[4] To express the same thought in another way: It is the cultivation of egoistic feelings that has made it so difficult to settle the vext question of the elective system. Even today one not infrequently reads that the elective system has broken down, and there is great rejoicing in some quarters that there is held out the hope of a return to the good old days of the cast-iron curriculum, when everybody was required to learn what everybody else seeking academic distinction had to learn.

[4] James's *Talks to teachers on psychology*, p. 263-64.

It is this want of sympathy that sometimes causes one to hear with eagerness that students studying the classics do so under protest and with great listlessness; but at the same time he is altogether forgetful of an actual and very material fact that there are many students, or rather pseudo-students, pursuing other than classical studies, whom ex-President Patton, of Princeton, once described in these words:

"The student says to his teacher: 'You are the educator, and I am the educatee. Now, educate me *if you can.*'"

It is because of this inability to appreciate another's point of view that the college professor not infrequently underestimates the value and the necessity of the executive man. For example, on one occasion a member of a university faculty, a man noted for his scholastic attainments, remarked to me: "Do you know what I would do if I were elected a college president?" I replied: "I have not the remotest idea." Whereupon he remarked: "I would resign at once in order that I might abolish the office."

The professor's remark might prove wholesome, if not comforting, to the college president here and there; but the professor, himself, together with not a few of his contemporaries who sympathize too deeply with themselves, and who are suffering from inability to do justice in estimating the services of the executive man, would do well to recall a passage to be found in Cicero's *De Senectute,* a passage which may be translated rather freely as follows:

"Downright stupid is the argument of those who contend that while some of the sailors aboard a vessel are climbing the masts, while others are running up and down the decks, and while still others are emptying the bilge-water, the pilot, holding the helm and sitting at the stern at his ease, is a mere useless and ornamental supernumerary. Their judgment is foolish indeed, for it is the pilot by whose talent, authority, and judgment the course of the ship is directed, and the safety of all on board is guaranteed."

My friend, the professor, and those of his class, seem to forget that the average college president stands sorely in need of qualifications of the highest order, which are thus described by Dean John O. Reed of the College of Arts of the Uni-

versity of Michigan, who, when that institution was in search of a successor to President Angell, gave this advice:

"He should bring to the University the financial genius of Messrs. Morgan, Carnegie, and Rockefeller combined, then possibly salaries might go up. He should possess the united powers of research of Darwin, of Pasteur, of Helmholz, and of Mommsen, then maybe 'productive scholarship' would get a show. He should be able to organize and disorganize railroads, mergers, trusts, and holding companies with a skill and finesse that would make J. J. Hill or E. H. Harriman look like one of Mr. Heinz's 57 varieties; this would encourage economics and business administration. All this for the glory and the advancement of Alma Mater. For his own individual needs the new president should have the ideas, the ideals, the forceful rhetoric, and the persistent purpose of T. Roosevelt, Esq., also the eye-glasses and the teeth; he should have an epidermis equal to two thicknesses of sole leather and the forceful, striking manner of Professor John L. Sullivan. He may then be able to meet the legislature, the Board of Regents, or his separate faculties and make each of them 'sit up.' Like bad boys in school, we can each of us think of at least one professor who has been 'spoiling for a licking for months,' and the new president ought to get to him quick."

There are, perhaps, not a few members of college faculties in America who have read with satisfaction an article in a recent number of *The nation,* containing this sentence:

"There is a fine opening for a new institution to show what the college can be wherein the personal domination by the president is abandoned and in its stead we have a company of gentlemen and scholars working together, with the president simply as the efficient center of inspiration and cooperation."

It would be well, however, for college professors and the general public to know what a very capable college president has said in reply to the suggestion just now quoted. This college president, who is a scholar, also, says:

"Concerning this statement two things may be said with a considerable amount of emphasis. The first is that the condition described in the last four lines is precisely what is to be found at every American college and university that is worthy of the name, and that no evidence to the contrary has ever been produced by anybody. The second is that while the attempt to create a contrary impression may be originally due to ignorance, when persisted in, it can only be attributed to malice."[5]

[5] Editorial in Educational Review, Vol. 40, p. 324.

Many other absurd and unseemly contentions now misdirecting and dissipating the energies of the world's educational workers would cease if only the spirit of hospitality, of real friendliness, of genuine open-mindedness should be allowed to have free course. With that spirit dominant, such questions as academic freedom, the autonomy of the high school, the education of woman upon equal terms with man, the respective provinces of the normal school and the university department of education, the value of various forms of industrial education, high standards for professional degrees, the democratizing of all education, and scores of other vexatious problems could be, and would be, peacefully and easily settled, for the issues would then be determined, not in that gladiatorial arena, where the weapons used are prejudice and lung-power, but in the realm of amicable conference, where reason is the arbiter, and where every worthy cause is guaranteed a decent, respectful hearing.

But the scientific man, in his attitude towards educational criticism, in addition to the attributes of rational knowledge and sympathetic feeling, will manifest executive disposition and power—he will carry over into the world of action what is alike dictated by his reason and prompted by his heart. If, for example, a well-informed layman, and one unusually interested in the welfare of colleges, take the time and the pains to write two volumes,[6] directing attention in one to what he conceives to be the fundamental defect in college life, and in the other to the advisability of a thoro reorganization of the modern college, the scientific man, if convinced of the correctness of the suggestions made, will at once give his support to the reforms proposed. When an especially competent and fair-minded critic publishes the results of his twenty years' educational observations and experience,[7] pointing out clearly and unmistakably that efficient teaching, as well as

[6] Birdseye's *Individual training in our colleges,* 407 p. (The Macmillan Co., New York), and Birdseye's *The reorganization of our colleges,* 396 p. (The Baker and Taylor Co., New York.)

[7] Flexner's *The American college,* 235 p. (The Century Company, New York.)

rational research, is a legitimate function, an imperative function of the university, and when the same author exposes, not in malice, but in the interest of truth, the actual status of the medical schools in America,[8] the truly scientific man will not brush aside every suggestion by exclaiming in the language of race bigotry: "There is nothing of value in the lucubrations of this man; his name, Abraham, is enough for me." He who needs to make no apology for his professional conduct, will accept at its true worth every criticism, whether made by Jew or Gentile, realizing the faithfulness of the wounds of a friend and demonstrating his own integrity and courage by reformation of life, even tho it lead to the destruction of long-cherished ideals or to the elimination of an educational institution that for years may have, either because of ignorance or malice aforethought, been deceiving the people.

I have cited only three or four instances in which the scientific man should manifest his will-power in order that educational ideals might pass into substantial realities; but, especially in a democratic country, where assertion often passes for argument and impudence for wisdom, the opportunities to render such service are great in both number and variety. The continuous demonstration of courage in seizing these opportunities will indeed be valuable, for it will establish the fundamental truth unknown as yet in some quarters, that in school affairs schoolmen are the natural and legitimate leaders, without whose leadership an absolutely essential element in the promotion of rational progress will be wanting. It may require some nerve to do so; but, when the proper occasion offers, the scientific man, the man who knows, should not hesitate to submit evidence of the inefficiency of the schools of his own community or his own state. A little stiffening of the backbone is sometimes needed to convince a people in a democratic state of society that the separation of their

[8] *Medical education in the United States and Canada.* A report to the Carnegie Foundation for the Advancement of Teaching, by Abraham Flexner, 326 p. (Published as Bulletin No. 4, by the Carnegie Foundation for the Advancement of Teaching, New York.)

schools from the domain of partizan politics must be accomplished if the schools be saved. Some firmness must be shown if taxpayers are to be converted to the doctrine that, in the equipment and the maintenance of the modern school, liberality of investment is the part of wisdom, while parsimony is foolish, if not criminal. To stand for the scientific study of education in any of its phases, to contend that such study, dealing, as it does, with the evolution of man, is as difficult and as important as any other branch of human learning, will, in some places, require the exhibition of no small degree of determination.

But it is this display of executive energy that furnishes the real test of human worth, a universal truth the delightful Portia, in *The merchant of Venice,* expresses in these words: "If to do were as easy as to know what were good to do, then chapels had been churches, and poor men's cottages princes' palaces." If the educational world is to make advance, the strenuous life must be lived, and the man of science will fail to make good if he confine himself to an academic or a sentimental view of the world, and if he do not bring things to pass. Holding fast to this truth, he will lend his aid when the fresh-water college is summoned to trial before the bar of public opinion (and the day is not far distant when that trial will occur), when campaigns to insure better support, better organization, and better teachers for the schools are inaugurated, and when any other righteous reform in education calls at an opportune time for volunteers.

In conclusion, I am rejoiced that the signs of the times warrant the belief and the hope that scientific men, blest with knowledge and insight, endowed with charity and catholicity of spirit, and stimulated by courage and confidence, are destined to exercise greater and greater influence in educational affairs. Few of these men, it is true, will be accorded places in the world's pantheon of fame; thousands of them, avoiding the limelight of publicity, will patiently work in obscurity, perfectly content if only the principles they espouse shall eventually be triumphant. Nevertheless, it will be thru the labors of such men, efficient in service, but neither officious nor of-

fensive in performance, that mighty achievements in the educational world will be won. To them the accomplishment will be dearer than the credit therefor; but when truth's record is finally made up, each of them will be found worthy of such a tribute as Kipling, in his *Pharaoh and the sergeant,* thus pays to the nameless heroes sent by England "to make a man of Pharaoh":

> "But he did it on the cheap and on the quiet,
> And he's not allowed to forward any claim—
> Though he drilled a black man white,
> Though he make a mummy fight,
> He will still continue Sergeant What-is-name—
> Private, Corporal, Color-Sergeant, and Instructor—
> But the everlasting miracle's the same!"

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II

THE CHILD VERSUS PROMOTION MACHINERY [1]

I find that a paper presented to this body thirteen years ago apologizes for presenting a matter of "minor consideration." [2] I apologize for lack of ability to make clear in twenty minutes the paramount importance of this subject in relation to the entire educational system. I declare it second to none save that of the direct moral welfare of the child, and it also has much to do with moral life.

I also find that thirty-two years ago, the sane and sensible statement was made to the National Educational Association *that promotions should be made at any time during the term, whenever a pupil is prepared to take up and understand the work of the next higher grade.* Yet today, I have among my replies howling objections to this sensible statement, calling it "chaos" and a "retrogression of our excellently perfected machinery." It was about this same year, 1881, that Superintendent Howland of Chicago took the breath out of the high school principals by announcing that henceforth all pupils would be admitted to the high school on the grade principal's recommendation and on that alone. The poor high school teachers felt hopeless without some definite per cent. to tell just how much past knowledge to expect of the child. The horrors of not knowing whether the dead line of seventy-five per cent. had been past! This was a master-stroke of administration. Its fruits have spread to the whole country.

You are all familiar with that valuable report of the New York and Brooklyn Teachers' Associations. I have inten-

[1] Paper read at the meeting of the Department of Superintendence of the National Education Association at St. Louis, Mo., February 27, 1912.

[2] W. W. Chalmers. National Educational Association *Proceedings*.

tionally directed my remarks to points not made prominent in that report. The thoroness of that work will account for some of the omissions in my brief paper. But if any one can pass in silence some of the statements, not by the committee, but by educational correspondents, on such subjects as "Allowing a child to work to his fullest capacity," and "doing over work satisfactorily past," it is more than I can do.

The committee well states that "The rapid evolution during the past twenty-five years of the American common school system of education into a hard and fast graded system is universally recognized;" that "No adequate incentive for highest endeavor is inherent in our present graded system." I heartily agree with the committee that our primary aim should be to put the child where he may work up to his fullest capacity to the best advantage to himself as a child.

My remarks are based upon a short practical experience some years ago; upon the study of educational problems; upon observations of the practical working of the system which many call *ideal,* but declare impossible because they have never given it a proper test; and finally upon about two hundred replies from grade and high school principals and from superintendents concerning this subject. Nearly all of these replies are from the Rocky Mountain states; two-thirds of them from my own state. Twenty minutes afford no time for details of the many systems in use. I shall attempt to bring to your minds five ideas:

First, the two dominant tendencies as represented by my returns.

Second, several significant efforts to take care of the backward and the bright pupils, not coming under the general systems; such as, the Cambridge, the Pueblo, the Batavia, etc.

Third, to show that the method of daily per cent. grades with final or periodic examination per cents., by which the fitness of a child to be promoted is determined, is absolutely pernicious, unjust, and productive of intellectual chaos. It is this topic that the valuable report to which I referred has entirely omitted. In many ways I believe it more important than the promotion itself.

Fourth, the cloud that is in some places settling over our country schools.

Lastly, I shall try to maintain that each child should at all times be at work in the grade and in the subjects that he can get most out of without regard to what he knows or does not know about studies behind him, and without regard to how much less or more he knows than other pupils.

Let us now turn to a brief consideration of these five points.

1. A few representative quotations from the returns must suffice.

The old conservative hard and fast system and the power of tradition are still powers in practise, if not in theory. A superintendent writes: "We have mid-year promotions in only a part of our subjects. In others it is a whole year credit or nothing. We reserve the privilege of counting twenty-five per cent. on application, and may fail a student who passes a good examination." Another says: "Numerical grades are sent to the office to be used in special cases." A grade principal says: "We promote on the half-year plan. Provided a student fails in more than half his work, he is required to take the entire half-year's work again." Again: "Promotion is dependent upon making a certain fixt average with the exception that a child may be promoted on condition, if he is low, not to exceed two studies." The same principal adds that he has a boy in the eighth grade who did not pass the seventh, who is making up and will finish the eighth all right. Another says: "I favor, in theory, promotion by subjects. This we find difficult in practise, especially when all grades are not represented in the same building." A superintendent of some twenty-five teachers writes: "We have numerical grades. This seems to be a necessity that we may know where we are at. There must be some guide and locating place." Another superintendent says: "The term *promotion-machinery* is more dreadful in name than in actual operation in well-regulated schools." A principal of a large grade school writes: "We have numerical grades and pupils are required to attain a certain minimum standing in order to be promoted. However, our superintendent has a rule which he calls 'Service promotion,' under

which pupils are promoted after two years in one grade. I believe a large number of the pupils are dropping out or being forced out of our schools because all are ground thru the same mill."

The best statement of the conservative method of promotion on a per cent. basis comes from a superintendent of one of the first-class districts in Colorado. "I would say that we base our promotions primarily upon percentage of grades earned in the more important studies. The plan of making promotions entirely on the judgment of the teacher may be excellent in theory, but in actual practise it very often produces grave annoyances such as the feeling that the teacher is partial to certain children, but has it in for certain other children, who thus do not have a fair opportunity. When there are carefully selected questions given to the pupil who is old enough to answer in writing, it gives the child an opportunity to make a record concerning which there can be no reasonable dispute. . . . After the child has gone over the same work two or three times it is our custom to promote that pupil 'by courtesy.'" Again, a principal of a large high school says: "Yes, we have used the numerical system of grading, feeling that it tends to carefulness and accuracy on the part of teachers. Some of our studies continue thruout the year, some are half-year subjects."

This is a glimpse of what I would call the conservative undercurrent; but I am rather sure that nearly every one of these would claim to be quite progressive.

Now just listen to a few conservative sentences taken from page 86 of the Report already cited. In response to the question: Should the child be placed where he may work up to his fullest capacity? here are some of the things that have been said: "No, it makes them unbalanced." "No, such a condition is imbecile." "No child should get to the high school before fourteen years." "Pushing children thru the grades and out at the top before they are mature enough in body and mind to profit by secondary education is akin to manslaughter, for it is little short of child-slaughter." "It is a crime against childhood to crowd children through the

grades." "I do not believe it wise to advance precocious children more rapidly than is provided by regular promotion." Such statements, if put into practise, constitute a crime against the child who is not yet able to fight his own battles.

Now a few remarks from what may properly be called the liberals or radicals. From my returns I condense the following: "The old system is vicious, and has literally slain its thousands. Bright girls have been held for all the work of a grade because the teacher's recitation book and examinations only totalled sixty-four per cent. instead of sixty-five, perhaps in a single branch, perhaps arithmetic. This is the only question I ask any teacher to decide: Has the pupil power to do the work of the next class or subject? If so, let him do it and do it now." Again: "For twenty-one years I have had no system. Systematized promotions tend to defeat our end—to advance the child according to his capacity. A hundred or more promotions have been made already this year, and only in two or three cases did we make a mistake. They are easily corrected." A superintendent says: "If promotion periods are too far apart the boy with red blood—the leader—resents such conditions; and if not relieved, breaks out into the world where he feels he has a fighting chance." "My trouble," writes a principal, "is to have teachers realize that the child is greater than any system. I hope I was never so devoid of common sense as not to place a pupil in the highest grade in which he was able to do satisfactory work." A principal who for many years has run a large school has demonstrated the falsity of the claim of necessity for grades and stated examinations, the absolute falsity of the repeated statements that a school run under flexible conditions costs more, that promotion by subjects in the grades will not work, writes me as follows: "Pupils are promoted from class to class and from grade to grade at any and all times; so soon as a pupil is discovered who can do, or should be doing more work, no matter what the grade, if the *physical* condition permits extra effort, he is advanced. It often occurs that pupils are promoted who are required to recite in two classes, until evenness in grade work is attained. No examination for these

promotions is required." Again: "Whenever a child has the power to do advanced work he should be promoted, and by the application of common sense any teacher should know fairly well when that is."

About one hundred and fifty communications are of this liberal type and the writers are practising what they preach, and thank the Lord they have nearly all abandoned that make-belief justice of recitation per cent. and final grade of sixty-five or seventy-five.

2. I have accounts of dozens of ways for helping up the backward child. Bare mention can be made of only a few. Combination of backward pupils with bright pupils in the same room; ungraded rooms for backward children; the practise teachers being used to help up the backward children; substitution of important subjects for some of the less essential ones; attendance in night schools; combination work in eighth grade and high school—these are examples of some of the methods used. The last-mentioned system is admirable where both schools are in the same building or near by. It relieves both the backward and the more capable pupils. One system of relief for the most capable permits the child to recite for a while in two grades in the same subject, and drop the lower one as soon as he is sure of doing the other.

3. The most insane educational idea that has hypnotically spread from the colleges down to the first grade is the idea that a teacher with forty children can ask a question, call on a child to recite, grade him 0, 4, or 10; keep this up for five or ten months, then present an array of questions to be answered and graded in like manner, and by the final addition of these results determine the child's knowledge and fitness for promotion. Yet college professors and principals stand up and say that such a thing is a necessary evil. It is only the power of habit and the suggestion that such things are necessary that dominate our teachers and the community. Only a few days ago I heard a principal say that he tried to get along without grades and report cards for three months, and found that all concerned preferred the old system. Can you educate a community or teachers out of a lifelong custom

in three months? In that same city are schools as good as ever run in America, in which such necessary evils have never existed.

Some months ago, thru the kindness of Dr. Clarke, I copied the examination manuscript of a boy's final test for promotion from the eighth grade. It was a paper in arithmetic. In some institutes where teachers were inclined to talk glibly about grading on what the paper was worth, and avoiding partiality, I gave the teachers this paper to grade. One hundred and fifty teachers gave grades ranging from twenty-nine per cent. to eighty-eight per cent. But they immediately began to say that they would be obliged to know the boy first. I said: "Very well. But why do you then pretend that you base your per cent. wholly on the paper?" They then named fourteen different things that should be considered in passing that boy. Again, what is poor work for one pupil may be excellent for another, and worthy of praise.

Whoever has observed a growing, bubbling child knows that the expressive side of life never keeps up with the receptive side. The highest, truest, and deepest value of education can never be measured objectively. You feel it, or read it in the soul of the individual. There is some truth in the paradox that the more we know about a thing the less able we are to define it. When a high school boy I could define electricity better than Edison can today; and God knows that I could define Him better when a Sunday-school pupil than I can after years of study.

4. The danger that threatens our country schools can be presented in a few words. Some states have developed the system by which the county superintendent or a state board prepares the questions that determine eighth grade graduation. They are sent to the teachers in closed envelopes, to be given to the pupils, answered, and returned for correction. If such a vicious system was not found in my own state I would say what I think about it. During the whole year both the teacher and the pupils keep guessing what the questions may be. Proper interest, independence, and originality are crucified. How does the superintendent or this clairvoyant board know

whether or not a child whom they have never seen should enter the high school?

5. Finally, *I must maintain that each child should, at all times, be at work in the grade and in the subjects that he can get the most out of without regard to what he knows or does not know about studies behind him, and without regard to how much more or less he knows than other pupils.* Is it not comical to talk about promoting a child "by courtesy" after he has been over the grade two or three times? Or of a "time-service promotion"? I further believe that the difference that separates educators is not at bottom so much a question of practical possibility as a question of the function of knowledge. I hold that outside of the immediate business or occupation of an individual the primary function of facts is to create the proper attitude towards the activities and problems of life, and to arouse interest and intellectual activity. Will it not be found that the old system of "know so much before promotion" exactly reversed this order? Under such an idea attention, interest, and intellectual activity existed for the accumulation of facts and knowledge.

Over-thoroness and accuracy have been made an immense burden without sufficient after-results in life to justify them. Intelligence, not memory, is the most precious thing in the universe; and in the language of Principal Bishop of Detroit, "You are doing a rank injustice if you make pupils mark time or keep them back in anything."

To allow the child to make the most of every moment of life in our public schools is not impossible. It is being done. When will we learn to teach children and not subjects and textbooks, to realize that in attempting to educate all the children we must deal with all grades of intellect and must provide for all, to look into the soul of the child and realize how far above our machinery it might soar if only we would not care more for the machinery than for the growing soul of the child?

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III

WOMAN AND "EQUAL PAY"

The astonishing action of the New York State legislature in passing the so-called Teachers' Equal Pay Bill and the even more astonishing action of the Mayor in accepting it for the city of New York and of the Governor in signing it, must challenge the attention of every thoughtful citizen. There has been so much loose talk regarding the measure, both for and against it, all touching lightly upon the surface, that the deeper significance of the movement in its behalf is in danger of being lost to view. It is this fundamental significance, lying deep at the roots of the social structure and threatening to weaken them, that it is the purpose of this article to discuss.

Before considering the farther reaches of the subject, it will be necessary to pause long enough to state in brief the history of the New York City movement and the terms of the newly established law. Prior to January 1, 1912, the teachers were paid under what was known as the Davis law, a section of the municipal charter giving to the Board of Education the power to adopt by-laws fixing the salaries of all members of the supervising and teaching staff. The section further prescribed certain minimum salaries for the various grades of the service, which minima became virtually the schedules adopted by the Board of Education. These schedules provided, in the main, different scales for men and for women. For example, the maximum salary paid to men teachers in the elementary schools was $2,400, to women teachers assigned to the same grade in the same schools, $1,500. Likewise, men principals of elementary schools received a maximum of $3,500 and women principals $2,500. In the high schools, men teachers went to $3,000 and women teachers to $2,400.

Six or seven years ago, the women inaugurated a demand for increases in salary based upon the principle that all differences between the salaries of men and of women in the same grade of service should be eliminated. On April 7, 1906, the Interborough Association of Women Teachers was organized, and waged a persistent campaign, culminating, October 30, 1911, in the passage of the law under consideration. This law repealed those parts of the charter section which prescribed minima and directed the Board of Education to put into effect January 1, 1912, schedules of salaries not lower than those already indorsed by that Board in May, 1911, and added the explicit direction that there should be no distinction of salary based upon distinction of sex.

Inasmuch as there are employed by the city approximately ten times as many women teachers as men teachers, it would be impossible to fix the salaries of all women at the figures paid the men without involving a prohibitive increase in the budget estimated at from six to ten millions of dollars. The Board of Education's schedules of May, 1911, were the result of a compromise made with the Interborough Association whereby the Board accepted the principle of "equal pay" and modified the expense by fixing salaries lower than those then received by the men. The association, in its turn, agreed to the provision that men then in the system should suffer no reduction in salary, but should be continued in accordance with the schedules then in effect.

The result is that under the law of October 30, 1911, all teachers, men and women alike, in each grade of the service, must be paid the same salaries. In the grades where formerly men received $2,400 and women $1,500, men and women will receive $1,850, except that the men in those positions at the date of the passage of the act will continue to receive the higher salary. In the high schools, men and women go together to a maximum of $3,150, and in the elementary school principalships men and women go to a maximum of $3,500.

So much by way of statement of the conditions. The sole aim of this article is to interpret the situation in terms of sociology. Before reaching the point where such discussion

is possible, however, we must consider the matter in its economic aspect. In this respect, it needs but a few words to indicate the falsity of the premise upon which this law is built. Owing to the great extent of the school system of New York City as well as the necessarily political character of the corporation known as the Board of Education which directs it, there is introduced a factor in the payment of salaries which is absent in all small, private business organizations. This factor is the necessity of reducing the payment of salaries to a schedule, which in turn necessitates the adjustment of salaries to an "average" individual. Thus it was found necessary—to select, by way of example, a specific case, which will be carried thruout this discussion as a type—to fix a salary of $1,900 for women high school teachers of a certain grade. As education is largely an unmeasurable thing and as teaching is an art, it stands to reason that no two women will render quite the same service to the city for the $1,900 paid them. It is by no means extreme to say, were it possible to evaluate exactly, that one woman might be worth $800 to the city and another $5,000. If employed by a private institution just this difference in salary would be made—and for but one reason, namely that the $800 woman could be replaced at any time by another woman at $800 and that the $5,000 woman could not be replaced by any woman at less than that figure. But because of the practical administrative difficulties which would be involved were such exact evaluations attempted in a system of nearly 20,000 public employees, the Board of Education "averages," and pays in accordance with schedules based on grade and length of service. The Board formerly fixt the salary of $1,900 for our typical high school teacher because at that figure women of average ability could be obtained. If it paid much less, the average woman, being able to secure the equivalent of $1,900 elsewhere, would leave to get it. As it was, if a $1,900 woman left, the Board had no difficulty in replacing her by another woman equally good on the average, and at the same salary. Further than this, the Board, committed to the policy that a certain limited number of men were needed

in the school system, went into the market and purchased the services of men. It found, by the same reasoning as in the case of the women teachers, that it would have to fix a salary of $2,400 to secure and to hold the service of a man of the same grade as the $1,900 woman. Finding the market price of men and of women different, it knew that it must make a corresponding difference in its salary schedules. The law now in effect, however, compels the Board of Education to ignore completely the respective economic values of men and of women and to pay the $1,900 woman a salary of $2,400 (plus an increase of $250 awarded both men and women).

There are certain corollaries to this general statement which should be noted before we leave the economic phase of the question. The process of teaching is not comparable with, for instance, the process of making hats. My test of a hat is entirely unrelated to the question of who made it. If I am shown two hats, both exactly alike, I choose either regardless of whether it was made by a man or a woman, by seven men and five women, or by a boy operating a complicated machine. My test of my boy's education is different. I do care whether my son has been subject to the influence of a womanly woman and of a manly man. Personally, I would like my son to come under the influence of both the manly personality and of the womanly personality; I do not want him to miss either. Possibly I am wrong in this theory; possibly it really makes no difference whether he gets his Latin and his algebra from men only or from women only, so long as he is made to study those lessons. I persist in believing, however, that the best education I can give him is to have him meet teachers of both sexes, and I share this belief with practically every educator the country over. If I am right in this, then there is the necessity of employing some men teachers and the further necessity of paying them the market rates for men, which, for very sound reasons, are higher than those for women. If I am wrong, then there is no possible excuse for employing any men when less costly women can satisfy all the requirements.

Certain prophecies are made concerning the effect of the

new law upon the schools. One set of prophets tells us that it will drive out the men, another that it will drive out the women. If the men are driven out, then the contention of the women for equal pay fails because there are no men's salaries with which to equalize; if the women are driven out, then there is no equal pay because there are no women left to enjoy it. And in either case the schools are damaged by eliminating entirely the influence of one sex or the other. If both prophecies are false and both men and women remain, as is surely the desirable condition, then the city is paying hundreds of dollars a year above the market price for the women it retains.

No business man, no business corporation, would think for a moment of making to any employee a gift of $750 a year in the form of a salary $750 above the market rates. No employer would say to an employee: I can get any number of other women to do the work that you are doing on the salary I am paying you; nevertheless, I will pay you a bonus of $750 because, if I needed a man, I should have to pay him that extra amount. But the city of New York is forced to do just this —to follow this uneconomic, unbusinesslike policy—by the order of the government of the state of New York. Keep in mind, then, as the crux of the whole matter, that the city is now compelled by legislative fiat to employ its teachers in violation of economic law. With this clearly before us, we may proceed to the real, the vital issue at stake.

However unwise and however unjustifiable this action of the state may be, we must grant that the state and the state alone is responsible. Certainly we can not blame the women who have secured this special privilege for themselves. We must indeed admire the adroitness of their campaign and the completeness of their triumph as politicians. Moreover, the desire for more money is a desire so common as to be understood by all, and we need not withhold congratulations from the women who have induced the state to give it to them. Further we can well understand and sympathize with the resentment—as an emotional experience—which many, probably a majority, of the women have felt in seeing men no more competent than

themselves paid at higher rates than they. What we must emphasize is that in this, as in all cases of the granting of special privilege, it is the state which grants it and not the grantee that is culpable.

What we have here specially to consider is the significance of this victory as a part of the larger "woman question," for it is evident that this movement for "equal pay" is but one phase of the general striving of women to gain a larger life than has been theirs in the past.

In primitive family life, the husband and the wife act in economic concord—the husband is the "outside man" of the firm and the wife is the manager of the internal domestic establishment. The man hunts, procures, protects; the woman rears, conserves, articulates. The man and the woman are in a partnership the duties and responsibilities of which are approximately equal. In terms of economics, each contributes his share of labor to the support of the family. With the advance of civilization, monetary systems develop and labor comes to have a measure in arbitrary terms of value.

But as the family is the unit, it is the family product which is bartered, and the husband, being the outside man, is the one who buys and sells. With further advance, further specialization takes place both in the commercial and industrial system and within the family itself. The woman becomes more specially the conserver of the home and less the direct producer of salable goods. The man becomes more specially the responsible producer of the economic wealth. His is the moral responsibility for the maintenance of the family, and civilized states have defined it also as a legal responsibility.

In an ideal state of society *every* man will be a husband and a father and a loyal supporter of his family, and even in our actual state that is what the majority of men are. In an ideal state of society *every* woman will be a wife and a mother and a loyal conserver of her family, and even in our actual state that is what the majority of women are. The fact that the great majority of men have families to support has led to an economic balance whereby men's wages, exprest in terms of money, are such as to enable a man to support his family.

That is, it is positively necessary to the preservation of the family and the family life that a man shall be, not self-supporting only, but family-supporting. The wage which he receives is the allotment of economic law, not to him as an individual, but to his family. His wage is a wage clearly intended to reward not him alone but him and his wife for their joint contribution to the common wealth in economic output and in human lives. Were the ideal state present, every man without exception would be the economic head of a family and every woman without exception would have her economic place, not in competition with men but as the co-partner in the headship of the family. Then would there be no question of the wages of women, for every woman would receive her wage thru the economic representative of her family.

But back of economic law, back of social law, there stands the biologic law, most fundamental and most potent of all. Nature has one all-pervading purpose, namely the persistence of life. The highest form of life we know is our own, our human life. Here, as in the lower forms, nature is ruthlessly persistent in her business of propagating species; to effect the survival of the highest type is her all-controlling task. According to her law the weak must go under; but humanity itself, by its very humaneness, has thwarted this law so that the weak receive a measure of protection against the merciless mandates of nature. One result is that we have not the ideal state of economic equilibrium but a serious condition of unbalance. Not to trace its development thru all stages, it is sufficient to recognize the fact that not every man is a family head, not every woman a partner in such headship. Thus arises our "woman problem."

Several factors are operative, some contributed by nature, some by men, some by women. To begin with, nature, in her zeal to make sure of her great purpose, creates a surplus of the females of the species. As to the men, some are timorously unwilling to risk the family responsibility, some are hopelessly unable to do so, some are too selfish to do so. Thus, as nature has made man the aggressor and society has delegated to him the duty of proposing marriage, many women

have found themselves without a place in normal family life. Added to these are the women who have felt that, in the course of evolution, an unequal burden has been placed upon womankind. Dr. G. Stanley Hall advances the plausible theory that the modern "unrest" of woman is biologic, and due to her instinctive desire to recover the privilege exercised by the female of all lower species of determining and controlling her own sexual life.

Whatever the causes, society faces the fact that a considerable proportion of its women are without the normal family life. They are without the position in the family prescribed for them by nature and they are without the economic support which comes to the normal woman who is the wife of a family-supporting man. Fortunately for society, these women are in a minority, are exceptional. Nevertheless, in all justice, society must meet this condition by granting to these women a position in the economic world and an opportunity to recover that economic reward for their labor which they would have received in leading the normal biologic and social life. And what is that reward? Clearly it is economic support for herself. Most assuredly it is *not* economic support for a family which does not exist. In other words, the right of the woman to a position of self-support is indubitable; her claim to a position yielding family support is unwarranted. Having herself to support, she must be paid by society a wage that will make her self-supporting; having no family to support, society can not in any justice to itself pay her a wage that will give her alone the support that should go to a family.

Now let us return to our high school teacher. She was employed by the city of New York as an average teacher and an average woman, under a salary schedule whereby she received $1,900. This fairly represented the economic reward which she would have received as an average woman had she fulfilled her normal function in the establishment of a family unit. In a similar position in the school is an average man who received $2,400 as the average economic reward of the normal man who must be family-supporting. This is the situation in terms of averages, the only terms upon which the

social fabric can be constructed and the only terms upon which the Board of Education can fix its schedules of salaries. There are possible, of course, certain exceptions. An occasional one of the men in question may have failed in his duty to society and may be selfishly appropriating to himself and his own personal gratification the economic reward intended by society for the family. Society must always feel a certain sort of contempt for the man who thus wilfully and selfishly neglects the burdens of life and yet takes to himself the economic reward assigned to those who are carrying those burdens. To the contrary, it is possible that some of the women in question may assume, or may have thrust upon them, certain moral obligations by way of support of other people. But these obligations are not legal and are exceptional. Moreover, they are to be eliminated from consideration, for such extra-legal obligations are just as much an incident in the life of the man, except that the married man may have them in double measure. So, all exceptions aside, the woman at $1,900 and the man at $2,400—particularly the woman—were rewarded adequately by society, and society was not called upon by any need of its own or any sense of justice to the woman or any economic necessity to pay to the woman a bonus of $750.[1] Yet society, as represented in the state of New York, has thrust upon the city of New York just this unwarranted burden.

It remains but to contemplate for a moment the future of society should it commit itself consistently to the policy thus initiated. Suppose society were to embark upon a world-wide attempt thus to abrogate natural and economic law by legislative fiat. A severe temptation would be placed upon all women wilfully to disown their natural mission in the scheme of nature. With the material reward before them double that which the normal life would yield, they would become unwilling to renounce the larger for the smaller. There would follow a gradual but sure lowering of the wage standard set

[1] The new schedule provides a salary of $2,650 for this grade of service, due to the fact that it was generally recognized that the man at $2,400 was underpaid.

for both men and women until both sexes were on a basis of self-support only. Under this condition neither sex could be expected to undertake to support a family, and the family would disappear. Then, to perpetuate itself, the socialistic state must needs devise some plan of public control of procreation whereby the women of the state would be thus employed, with economic compensation, by the state; and for the child, the crêche would completely replace the home. We can not be altogether dogmatic and assert that this would produce a race inferior to that developed by our present form of family life. Be that whatever it may, this article is not written to defend the family, but to show, merely, the relation to that institution of this latest vagary of legislative action. If society proposes to stand by such action, at least let it realize its full import. When it permits its government to enact such a law, let it recognize that it is, by direct implication, attacking the institution of the family. It is a fair question to raise: Is the so-called equal pay proposition in accord with the interests of humanity? And it is a safe assertion to make: If it is not, it can not ultimately survive.

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IV

ENGLISH AS TRAINING IN THOUGHT

I

The man who contemplates thoughtfully our university instruction in English, aside from the work of a few great teachers, is likely to question very seriously the value of the training which it offers to the multitude of students who make it their specialty. In some cases English seems to be merely an elegant pastime, in others a highly specialized and very dull and useless part of history—the one and the other equally ill adapted as material for a liberal education. Often enough the results are such as to justify one's doubts: many of the graduates from our English courses show the thinness of their training in their lack of ability to think, in their feeble mastery of the thought of past ages, in their lack of any real grasp of the significance of the literature they have been studying. Such is the state of affairs which furnishes the occasion of this essay, but my purpose here is not to reform the teaching of the whole subject. It is the less ambitious one of suggesting what I believe to be an improvement over the usual freshman course, altho the principles upon which my argument is based, if sound, should be applied to most of the undergraduate teaching of English. The suggestions I am making are concerned almost entirely with the subject-matter of the course, and not with what would be called, in the pedagogical sense, the method of teaching. The machinery of the freshman course is important: even Mark Hopkins could not dispose of a class of four hundred on the other end of a log, but the most important question is, What shall we teach? To that question most of this essay is devoted.

According to the prevailing method, the subject is divided into two courses, one to teach composition, and the other

literature.[1] Sometimes the students who wish to do no more work in English are required to take only the first: sometimes they are compelled to take both. The aim of the composition course is to give the student correctness and power in writing —"clearness, force, and ease." To this end he is required to write and speak a great deal and his productions are criticized by his teacher and classmates mainly from the rhetorical point of view—that is, according to the form in which the ideas are exprest. Usually the undergraduate is directed to write many short themes, and these on subjects rather easy to understand, in order that he may be freer to fix his attention upon form. A student produces an enormous number of these compositions during his career in high school and college. He is rigorously held to the task: the excuse so often made that he has run out of ideas and has nothing to write is never so much as considered by the teacher. The theory is that any ideas whatsoever can be made into a good theme if only well enough exprest. How to dress nature to advantage is the whole study.

In literature the most popular form of introductory course seems to be a rapid survey of English literary history from Alfred or Chaucer to Tennyson. The purpose is to give the members of the class a bird's-eye view in order that they may understand, so to speak, the possibilities of the subject, may have their curiosity excited by different periods and authors, and be thus stimulated to further reading and study, and that they may learn at the beginning the place of each author in what is often called the evolution of English literature.

To the writer it seems that these methods are not successful. This essay is an attempt to explain the nature of a course, now being given for the fourth year at Indiana University, based upon the opposite theory, namely—that the value of English literature is something quite distinct from its history or from the analysis of its form and technique; that this literary study of literature, as it might be called, should precede a formal or historical study of it; that the only way to teach students

[1] Parts of the first section of this article are reprinted, by permission, from a letter in the *Nation* of December 1, 1910.

to write is to teach them to think of *what* they are writing, not *how* they are writing; and that the most economical and interesting way to teach composition is in connection with the study of literature, making the themes one means of testing the student's understanding of the books which he is reading.

Probably university teachers take it too much for granted that the members of their classes know why they are studying a particular subject, and hence neglect what is very necessary, namely, to indicate the general importance of the subject, its relation to other knowledge, and the good which the individual may expect to get from it. If the student is to plan his own education he needs all the help of this kind he can get. It is especially true of English literature that undergraduates study it blindly, not thinking much about what they want or what they could reasonably expect it to do for them. Whereas in many subjects the value is obvious, the value of literature, on the other hand, is not obvious, and many people who are studying and some who are teaching it would have difficulty in giving a sensible reason for the way in which they are spending their time. The problem, then, is not to give the student first of all a history of English literature or a knowledge of the principles of style, but it is rather to give him a conception of the whole subject, some notion of literature as a record of thought, and to make that notion as clear and definite as possible. The phrase "the meaning of literature" smacks of various unpleasant and sentimental associations, but if we have the courage to disregard these for a moment, it is plain that some idea of the meaning of literature is the most important thing to be taught in a freshman course. We should select from the best of our English writers as many works as can be studied carefully and no more, covering an extent of time and a variety of material wide enough to give some notion of the range of the subject, and study these for their meaning (that is, to get out of them as fully and completely as possible the most important things that the author was trying to say), bringing to bear on this work just as much study of history and of style as will aid the student and not retard him. Perhaps one can not go far

with this in a year, but the knowledge acquired, as far as it does extend, will be real, involving thought and sense of proportion as well as memory.

The plans which I described as the usual method of teaching English literature and composition tend towards standardization of the product: certain information and opinions are taught in the literature classes; a certain low standard of good form is reached in the classes in composition. Now standardization may be very useful in some cases, but it is a bad ideal for the teaching of freshman English. What is wanted there is that the students should become more different, not more alike. In literature the important thing is not that the student should know what the critics consider good and what bad, nor that he should be acquainted with any special list of classics, but rather that he should have some opinions of his own, formed by the best thought of which he is capable—that he should learn to think as he reads. Let him go on thinking and reading and discussing, and his opinions will become as orthodox and his knowledge as catholic as they need to be. In composition it is of first importance not that he should learn to write sentences and paragraphs according to any specific pattern, but that he should think hard and convey his thoughts to his teacher as clearly as possible. He will be quick to see his failures if he is really trying to say something and not merely to produce a theme, and then he will be in the right frame of mind to undertake as thoro a study of form as the importance of his ideas demands. So studied, English literature and English composition will develop his individual power of thinking, which is the contribution these subjects should make toward his education.

II

In his striking and ingenious book called *What is art?* Tolstoy takes a position which would deny to all teachers of literature the right to such slender amount of bread as can now be obtained by their profession. Art, he says, is essentially unteachable, and its decadence is due in no small measure

to the mistaken activity of teachers and critics. A work of art, according to him, is that which communicates feeling from one man to another, from the artist to the audience. If it does not do this, it is not art; if it does, what is the need to explain it? Universal intelligibility is an essential attribute of true art, and it is only the presence of a group of misguided persons whose business is to teach and explain it that has blinded men's eyes to this fact and furthermore spread the belief in the false art, so common at present, which is not intelligible, even prides itself on not being so, and which, having thus narrowed its audience, has likewise narrowed and vitiated its subject-matter until it has become an abomination.

At first sight it is not easy to point out a flaw in Tolstoy's logic, nor is it easy to evade his conclusion, namely, that while there may be some reason for scientific teachers (historians, philologists, and the like) to expound the history of art or the nature of its material, there is no excuse for the teacher who is trying to explain the nature and meaning of art itself. The man to whom this skeleton of Tolstoy's argument seems nonsense would do well to read and ponder over the book. Nevertheless I do not believe that his position is sound. I shall try to explain my meaning by outlining what I conceive to be the real vocation of the teacher of literature and the real function of criticism.

Tolstoy's statement that true art is universally intelligible must, it seems to me, be modified so as to read: True art is intelligible to all men who have questions to ask of it. It is a fact—which never ceases to be the marvel of all marvels—that many men have no questions to ask. To them the world has no mysteries, or almost none. They live their lives, certain of their aims, certain of the rules of the game which they have chosen to play, certain of the value of the stakes which they hope to win. In their lives day by day there is no wonder: they die with no thought as to whether anything or nothing will happen after death. In this fact lies the basis of the age-long feud between the poet or the scientist and the man in the street. To the non-thinker life is conventional, fixt, and expected: the physical world is plain and easy to understand; human

nature is the same everywhere. To the thinker, on the other hand, it is a baffling, alluring problem. To the man of scientific imagination, what we call knowledge of the physical world seems only the expression of our wonder, and to the poet the universe is likewise wonderful, filled with beauty so mysterious that to perceive it is an act of faith. So that it is almost a distinction between the thinker and the non-thinker to say that it is a matter not of knowledge, but of wonder. The first is the man with many questions to ask; the second, the man with none.

This sense of the mystery of life is the first essential for an understanding of science or an appreciation of poetry. It is here that the teacher finds his main work to do. To open the student's eyes to the world, to suggest to him some of the problems of education, of politics, of religion, and the methods of poetry and science in seeking for solutions—this is the function of the teacher of literature. It is a difficult task but a real one, and one which, honestly attempted, will give the teacher the joy of doing a man's work—a joy which the task of making doubtful analyses of structure and technique and spinning out precious comments on the "fine shades" will not give.

Upon these principles is based the first term's work of our freshman course. The idea is to break thru the crust of conventional notions which prevents the student from thinking by hiding from him the fact that life has problems yet unsolved. We undertake to make him realize that the world is a different place to each man—made what it is by the honesty and depth of his thought about it. We try to start him thinking about the problems which confront him. We are concerned not so much that he should become a devotee of literature as that he should acquire a thoughtful attitude toward the world. The most important thing needed to make a student of literature or of any other subject is intellectual curiosity.

In the first theme which the students write we ask them to answer as fully and honestly as they can some such question as this: What benefit do you expect to get from your stay at

the university? Their answers are usually serious, tho not always very intelligent. Most of them are seeking advancement in life, and hope to get from the university the training which will enable them to advance by means of this work or that. A few have no more definite motive than willingness to learn things which men consider worth learning: they have done well in the high school and believe that they owe it to themselves to go on with their studies. Their belief in education is based only on hearsay, on the hypnotic force of public opinion. They are not thinkers, but they are willing workers, ready to devote their best efforts to whatever tasks are given them, anxious for any direction they can get as to what is best to do, and willing to do it up to any standard of excellence they can be made to comprehend. Intellectually they are passive, altho they may be aggressive enough in other ways. They come to the university to learn, not to think. They will assent to almost anything they hear or read; they will hold in their minds various contradictory opinions without making any effort to reconcile them; and they are filled with vague dread and terror at the notion of trying to work out anything for themselves. They wish to make their journey thru the "realms of gold" in a personally conducted party, with no side trips. I am not saying this to disparage American students. In spite of all this, the right teacher can get from them excellent work, but he must clearly understand his problem, and this passive state of mind is one important element in it. Doubtless it is much better that they should come to the university without having attacked questions beyond their years, much better that their high school training should be devoted to learning things which they can learn (better then than later) than that it should be spent in thinking about things which they could not understand. But their university training should be different, chiefly in this, that now they should begin to think as well as to learn.

III

Stated in such abstract form, the program of our first term's work will, I fear, strike the reader as so overwhelming

in extent and so vague and intangible in essence as to be likely to result in nothing but a confused jumble of big phrases ill understood, an inchoate wail about the mystery of life poured into the freshman's ears at just the moment when, according to the demand of the brisk, busy spirit of modern education, he should be storing up daily bits of perfectly clear and definite information which he can put to sound uses later on. If the preceding paragraphs have given that impression I hope to make the following ones dispel it.

Our academic year at Indiana University, from the end of September to the end of June, is divided into three terms of twelve weeks each. I propose now to describe the work of this course for the first term. The reading consists of four or five of the following books:

Newman: *Idea of a university.*

Arnold: *Culture and anarchy.*

Huxley: Essays, mostly from *Science and education.*

Ruskin: *Unto this last* and *Sesame and lilies.*

Carlyle: *Past and present* and *Heroes and hero-worship.*[2]

Our method for the first term has been to select from the works of the great English thinkers of the nineteenth century those books which comment most clearly and most powerfully on the achievements of English thought in dealing with three or four questions: education, social and political life, and religion, selecting among these writers at least one scientist whose work is so clear in its perception of the significance of scientific thought as to be also literature. The aim of this work is to suggest some of the fundamental problems with which literature is concerned and to teach the students to think as they read. We try to select the men whose grasp of these questions is deepest and truest—men who see their subject most clearly, who see it not merely in details but as a whole, men whose work best measures the value of English civilization up to this time.

[2] For the sake of clearness I may as well outline the reading of the whole year in this place. During the second and third terms we study four poets—Wordsworth, Pope, Milton, and Shakspere—applying to this study the ideas developed in the first term.

To these books I have applied the term criticism, using the word in the sense which Matthew Arnold gives to it in his essay *On the function of criticism at the present time.* The business of the critic, Arnold says, is to supply to the creative writer materials for his work. The materials of literature are ideas. The poet, like most men, depends for his ideas upon the time in which he lives; he is not usually a scholar, he is not so much a student of the past as a student of the life about him, of the ideas of his time as men express them in conduct. His task, however, is not merely to reproduce photographically the life which he sees: it is to give that kind of portrayal of it which we call art—a portrayal which is in reality a comment on life, an explanation of its significance. The artist must see life and know it intimately, but he must see it and know it not from its level but from above. Now the function of the critic, as Arnold conceives it, is to bring to bear upon the thought of his time a current of true and fresh ideas, the thought of other times and of other nations, in order to supplement, to broaden, and to correct it, wherever it is narrow or false. By so broadening and enriching the thought of his age the critic will stimulate the creative artist to reflection, will offer other points of view for his consideration, will help to raise him to that height from which it is possible to see life justly; will, in short, supply the artist with materials for his work.

What Arnold has said of the creative intelligence of the writer is no less true of the creative intelligence of the reader. He also must have ideas, must be a thinker, in order to understand literature, and the wider the range of his ideas, the more truly he is master of the best thought of his own age and of other ages as well, the better will he be able to understand and the more justly to appreciate the literature which he reads.

The word "criticism" as here used is to be understood in Arnold's sense. The purpose of the reading I have described by it is to widen the range of the student's thought, to give him, within the limits possible, an introduction to some of the materials of literature.

The problems which we discuss are the most fundamental ones, those which have the widest bearing upon poetry and upon all great thought, and those which the student will find in a real sense the most practical. The first of these is the problem of education. The essential thing to be made clear about literature before the student can get any right conception of it is that all literature worthy of the name is a means to education, perhaps the most effective of all means by which one man teaches another. Education means the development of one's power to think. The value of the study of the thought of another man is that the student should be thereby stimulated to think for himself. No thought is true for him which he himself can not think: what he has thought thru for himself becomes his own. One can not understand a poem or a novel or a play except by thinking about it. The real readers of a book are those whose thought answers the thought of the author: they are the "fit audience" for whom he writes. Unthinking readers are not readers at all, and the student must realize this or the study of literature will profit him little.

Over and over again the statement has been made that the end of the greatest literature is pleasure, not instruction; and this statement has occasioned endless perplexity in the minds of those who have not understood it. Unquestionably there are many books from which one derives amusement and practically nothing else, and they are not to be despised on that account, but they are not a part of our greatest literature. Let me quote two utterances on the subject, apparently opposite, really consistent, which will suggest the position which I wish to define. The first is by Dr. Furnivall, from Furnivall and Munro's *Life of Shakespeare:* "The revived doctrine that the main object of poetry is to please, amuse, seems to me too contemptible to be discust. I don't believe the mere wish to please ever produced anything better than toys." Another, from Wordsworth's *Preface to the lyrical ballads:* "Nor let this necessity of producing immediate pleasure be considered as a degradation of the poet's art. It is far otherwise. It is an acknowledgment of the beauty of the universe,

an acknowledgment the more sincere, because not formal, but indirect; it is a task light and easy to him who looks at the world in the spirit of love: further, it is a homage paid to the native and naked dignity of man, to the grand elementary principle of pleasure, by which he knows, and feels, and lives, and moves."

Between the two the question is merely verbal, and the point is this. The business of the poet is to say the most serious and the truest things about life that his divine vision reveals to him. His business is to tell us the truth, to show us the way of life. But serious men have found, and always do find, in the pursuit and contemplation of such ideas the highest type of pleasure. There is no amusement that does not pall at length and leave us restless and unsatisfied. The toilsome pursuit of knowledge seems to be the one thing in which man finds deep and enduring satisfaction. Of all his appetites this is the deepest rooted, and of all his occupations this seems most worth while. If one understands pleasure in this high sense, the end of poetry is pleasure. If not, it is nearer the truth to say that its end is to instruct.

But the word education means many things to our students, and it is necessary to spend some time defining terms. Aside from the value for the study of literature, the consideration of what are the ends of education, which ends are most worthy and which least, what are the effective means toward it, what is true education and what false, is also of immediate practical value to the student who is compelled under the elective system to map out his own course. He must think about the subject, he must make choices, whether wisely or foolishly, and he is eager for any light upon it that he can get. The best books we have found upon which to base our study of these problems are the *Idea of a university,* by Cardinal Newman, and the *Essays* of Huxley. These men are thinkers, not impressionists; whether right or wrong, they know what they mean; they approach their subject from a height (to use one of Newman's phrases); they are intensely practical, if by practical one means considering the subject always with regard to its bearing upon life; and their exposition of principles is

so clear as to be perfectly within the grasp of any freshman intelligent enough to hope to make progress in the study of literature. A few weeks devoted to a careful reading of these books will not settle for the student all educational problems, but they will give him a basis from which to attack them, a point of view which will enable him to understand and properly relate other opinions which he reads or hears upon the subject. By making clear a few fundamental ideas, this study will open his mind to a thousand problems in regard to it: it will at the same time make clear a few old questions and suggest many new ones.

The reading of Newman and Huxley demands that the student should think and write about such topics as the relation of knowledge to information, the difference between liberal and useful knowledge, the relation of knowledge to morality, the value of science and of literature to education. Naturally the undergraduate does not say the final word on any of these subjects; it will be the teacher's fault if the student does not realize that his grasp of them is far from perfect. But they are questions which he must think about in planning his education; and they are questions upon which it is perfectly possible for him to understand the position of Newman and of Huxley, and to have an intelligent opinion of his own. Both the reading and the themes offer severe discipline in thinking. The students immediately apply the views of Newman and Huxley to their work and aims; the result, in the minds of most of them, is a much clearer idea of what they want from the university and what they can expect from the study of literature.

Such work as this is not vague or intangible. Nor does it overtax the student's powers. A freshman capable of planning his own course is certainly able to understand Newman's distinction between information and real knowledge or Huxley's celebrated figure of the Alpine mother. Nor, further, does such work leave the student in confusion. The ideas he has gained are real and definite; and because from this elevation he is able to see new questions, "Alps on Alps" rising in front of him, and hence has a somewhat humbler attitude

toward the subject—because of this his position is really not more confused but clearer. And yet such work does give him a lively notion of the difficulties in the matter; it gives him that elementary knowledge which makes curiosity possible.

Space does not allow me to explain how in connection with *Culture and anarchy, Unto this last,* and *Heroes and hero-worship* we discuss the relation of literature to social and political life, and to religion. *Heroes and hero-worship* is likely, it seems to me, to prove for the beginner the most illuminating work of criticism in our language, because it emphasizes over and over again the conception of the poet as a teacher of men, a leader of thought, and because it contains an endlessly suggestive account of the particular kind of instruction which literature has to offer.

Our task is to raise the questions which I have outlined and to give the students some of the ideas of our greatest nineteenth century writers about them. We have no propaganda to advance; we try to open the questions, to deal as fairly and as intelligently as possible with the books we read, and to set the students thinking. These are not problems to be referred to experts merely; they are questions which every intelligent man must think about for himself if we are to have a society in which there will be any audience for the opinions of the expert—the scholar and the philosopher. The problems are not of our making nor of Newman's nor Carlyle's nor Huxley's. They face the student in the world. They are questions which literature and science and philosophy alike have as their mission to solve.

The books which I have described are works of criticism in the sense of Arnold's illuminating definition. Reading criticism is bad for the student only when it is misleading. Criticism which is concerned solely with the analysis of technique, with the tracing of sources and lines of influence, with the making of literary estimates or the passing of judgments without first explaining the principles upon which these estimates and these judgments are based—in short, criticism which, in commenting upon literature, places the emphasis somewhere else than upon the idea, is for the young student misleading.

True criticism, which is trying "to see the object as in itself it really is," which endeavors "to create a current of true and fresh ideas," has for the student the greatest value; it is the definition of intelligent appreciation and must ever be the goal of the study of literature. Arnold says of the English poetry of the early nineteenth century that, great tho it be, it is in places empty of matter, incoherent, wanting in completeness and variety, because of the fact that it lacks ideas, lacks materials to work with. This comment, whether true or not of the Romantic poets, is unquestionably true of our university study of literature. It is not true of our study of literary history: but the study of literary history, valuable as it is, can not entirely take the place of the study of literature itself; and the truest word that can be said of the usual study of literature in our universities is that it lacks ideas. It lacks ideas of the sort that we have put into this first term's work, ideas which are necessary to any adequate conception of its meaning.

IV

It will be quite clear from what I have said that in our study of poetry we aim primarily to understand its meaning. That would seem to be the natural thing to do, but nevertheless it is a task which, so far as my experience goes, teachers of English literature usually evade. It is evaded (most of all in the freshman course) by teachers who are so engrossed in laying a foundation of historical knowledge about literature (which knowledge in its proper subordinate place is of course an admirable help to understanding it) that they never come to the principal matter, and the greater number of our students, whose study of literature ends here, leave the university with no more conception of its meaning than they had when they entered. Again, it is evaded (oftener in advanced courses) by teachers who are engaged in elaborate analyses of literary structure and technique, which study is likewise valuable for the student who has learned to read intelligently, and likewise worthless for the one who has not. It is evaded, in the third place, by a large class of mystics, who, to save the

trouble of thinking, treat poetry as something to be enjoyed without being understood, men who bid us read poetry, and thank God for it, and think no more about it. Any attempt to understand it they call philosophizing, and since they despise philosophy, this is a vile reproach. It is this class of evaders and the second who are responsible for the thin quality of the education ordinarily obtained from the study of English literature. The history of literature offers scholarly discipline even if the student gets nothing else: misty, unthinking, rhapsodical "appreciation" offers nothing but empty words:

> "The hungry sheep look up and are not fed,
> But swoln with wind and the rank mist they draw,
> Rot inwardly, and foul contagion spread."

All this we have made of the study of the "best that has been thought and said in the world," simply because we have not seen it as it is. Literature has a meaning more important than any lore about it, which is not the result of juggling with words, and which is not to be discovered by any method except by thoughtfully trying to understand it.

The first essential for understanding this meaning is, as I have said, that we should have wondered about life; that we should

> "take upon's the mystery of things,
> As if we were God's spies;"

that we should seek in literature the great thing which it has to offer, namely, high and serious thought about the problems that beset every man. Altho our students when they come to the university have little disposition to wonder, very little tendency to think about things on their own account, it is easy to awaken in the best of them keen interest in every kind of problem. Once aroused from their apathy, their natural curiosity causes them to seek in poetry not amusement, but illumination. Indeed they are impatient of anything which does not promise answers to their questions; on the whole, they prefer tragedy to comedy, thoughtful poetry rather than dainty lyrics, serious thought in an essay rather than grace and humor. "Jesting is not suited to youth," says Fichte, and his

words are true, "they know little of man who think so; where youth is wasted in sport it will never attain to earnestness and true existence. The portion of Youth in life is the Earnest and the Sublime—only after such a youth does maturity attain to the Beautiful, and with it to sportful enjoyment of the vulgar." Humor, grace, daintiness, finish—indeed all the more delicate qualities of literature depend for their proper appreciation upon a background of seriousness and thought. To him who has not this background they are pointless: nonsense rests upon sense, daintiness upon strength. It is only in the calmness of the mature and cultivated mind that the finer graces of literature can be truly valued, and maturity and culture are reached only by thinking about the more earnest and more fundamental problems of art and of life.

For the sake of clearness it is necessary to repeat that I do not mistake poetry for philosophy, history, or science, and when I talk about its meaning I do not imagine that it can be "translated" into any of these. It has its bearing upon them as they upon it; it is made of the same "life-stuff," but, to use a phrase of Professor Bradley's, the connections are underground. The poet gives his account of life just as the scientist and the philosopher give theirs. They are different versions, drawings made from different points of view, with immediate purposes different, but all having the same ultimate purpose—to understand the world and this our life.

The four poets whom we study—Wordsworth, Pope, Milton, and Shakspere—are those who have given to English civilization of the last four centuries its most important poetic expression. To read them understandingly is an introduction to the history of English thought. Each has his own attitude toward the problems of social life, of politics, of religion, and his own measure of the power or weakness of man's mind which define the possibilities of education. Our task is to explain these ideas, to make the class see as clearly as possible the point of view of each poet toward life. Of course we can not fulfil this task perfectly, and we must make the class understand that they are getting only an introduction to the history of literature, not all of it.

The first poet we read is Wordsworth. I can best explain our study of him by mentioning first some of the things we leave undone. We do not try to "unweave the rainbow of Romanticism." We do not try to pronounce upon the consistency or inconsistency of Wordsworth's revolt against "poetic diction." We do not spread nor do we try to contradict the popular belief as to his "inequality." We spend no time commenting on his revival of the sonnet or his Miltonic mastery of blank verse. We make no attempt to analyze the merits and defects of his narrative and descriptive methods. These subjects are all interesting, and it is easy for a class to put down and remember anything that is said about them, but they are not the most important things for the freshman to study in Wordsworth. The important matter is his ideas—what it is that he has to say. One chapter in Professor Raleigh's book on Wordsworth is entitled "Illumination"; it is this which we try to get at in our study of his poetry, to understand as far as we can his "authentic tidings of unseen things."

Our study of Pope, of Milton, and of Shakspere follows much the same plan. We try in each case, within the limits of what is possible to us, to get the most important things which each poet has to say. In the lectures and class work we furnish the student with as much information about the times as is necessary to make these ideas intelligible. We compare one poet with another, not so much to form judgments as to make the position of each clear. The student must make his own judgments: our task is to help him to understand poetry, to get from it the best that it has to give: he will estimate that best according to its worth to him, which depends upon many conditions over which his teachers have no control.

Many persons who would agree to the application of such a plan of study as I have outlined to Wordsworth, Pope, and Milton would perhaps not see how it could be applied to Shakspere. The first three are didactic, they would say; he is not. The first three made it their profest object to mold the opinion of cultivated men: both Pope and Wordsworth echo Milton's lofty prolog; each is

"intent to weigh
The good and evil of our mortal state,"

each undertakes to

"assert Eternal Providence
And justify the ways of God to men."

But Shakspere, my objectors will say, undertook only to amuse a ragamuffin Bankside audience. He watched the pageant of the world go by, he was interested in it, he has preserved many sketches of it for our enjoyment, but he did not think about it, or if he did, he has not left us his thoughts.

As a matter of fact, each character in Shakspere represents a theory of life—a theory which in the case of each important person is worked out with great fulness and reality. Of course there are stock figures, whose actions are determined by the demands of the plot and are to be taken for granted, who can scarcely be said to have any thoughts, but the important ones are all thinkers. The greatest of them are poets, and their best speeches contain Shakspere's sympathetic justification of their lives. Often Shakspere seems more interested in explaining the action than in advancing it. Nine-tenths of the great passages are thoughtful; many of them are soliloquies or arguments and explanations, during which the play seems to stand still. However, it does not stand still; the essential part of the action is this interplay of character, and the fulness with which the secret springs and motives are presented gives to these plays their wonderful richness and reality. In order to understand Shakspere it is first of all important that the student should think about the questions which confront his characters.

Shakspere does more than present in each person he has created a certain theory of life: he presents also a commentary upon it, an estimate of its worth. This comment is not philosophical but entirely poetical. He shows us in each case not merely the thoughts and motives, but the result of those thoughts and motives and of the actions caused by them. This is not a matter of success from the standpoint of plot but

rather of greatness from the standpoint of character. Henry V is successful, Hamlet is a failure; but it is perfectly plain to any one who can read the language of poetry that Hamlet lives in another and higher world, a world of which Henry, with all his clear-eyed grasp of fact, has never seen the border. So one might illustrate from them all. What one finds in Shakspere is his working out of this theory and that, his estimate of its worth: in other words, a highly complex comment on the world, its glory, its shame, its aspirations, its failures, and its victory—a comment which can be understood by thinking about it and in no other way.

He insists upon the complexity of it. He offers for our consideration not one view but many. Life was to him anything but simple. Only the most robust of thinkers can follow him thru such a range. However, because he has said, this is to be weighed on the one side, that on the other, he is not therefore serving the interests of confusion but those of truth. He seems determined to consider every element, to give every man a sympathetic hearing, to state every point of view. There is a story told of Robert Louis Stevenson which illustrates my point. He was asked if he had a moral which he was trying to advance in a certain story. "No," he replied, "no moral of my own: it's God's moral that I'm trying to get hold of." More than any man who has written in English Shakspere seems to have been trying to understand "God's moral" in its infinite complexity. If the result is to leave us humble and thoughtful rather than to give us a doctrine to propagate, one need not say on that account that Shakspere has not thought about life or that he has not left us his thoughts.

Of course the teacher who is narrow and blind, whose every statement is based on authority instead of reason, sentimentality instead of feeling, will fail to do justice to the varied and complex world of thought contained in the works of our poets. From such teachers we have the weary multiplication of false and petty "morals" which are appended—each to its poem—and taught as the "meaning of literature." Such spectacles—repeated as they are on every side of us—tempt

the violent man to deny out of hand that literature has any meaning. I fancy that this revulsion against sentimentality has had a greater effect on the teaching of poetry than most people would imagine. One extreme has bred the other. The sound position, as I conceive it, is to make the study of literature neither an arid manipulation of dry bones, nor an emotional debauch, but a sound discipline dealing with real ideas and yielding to the successful student that pleasure which comes with knowledge. The surest protection against sentimentality will be to insist upon thought.

Thus it is that our teaching of poetry comes down to an illustration of Carlyle's statement, "It is a man's sincerity and depth of vision which make him a poet." It is the truth which men feel in this vision which makes them value poetry. It is the pleasure which comes from the satisfaction of this highest of all human desires—the desire to know—which causes men to say that the end of poetry is pleasure. And it is the study of poetry from this point of view which will lead the student to see the meaning and to estimate the truth of such a statement as that of Wordsworth: "Poetry is the breath and finer spirit of all knowledge; it is the impassioned expression which is the countenance of all science."

V

I propose finally to explain how we apply these theories to our composition work. In our course we require rather less writing than usual—only one theme a week. This weekly theme is not a mere exercise in composition: its function is to test the student's understanding of the literature we are studying (not ideas about this literature but ideas that are exprest in it) and also to test and develop his power of applying these ideas. The principal emphasis is laid upon the subject-matter: the student's grade depends most of all upon what he has said. Mechanical correctness (by which I mean decent spelling and punctuation, good grammar, and thoughtful paragraphing) is presupposed. Three-fourths of our students can do well enough in these respects if they take

pains; those who can not are given extra conferences and frequent exercises to bring them up, and if they can not reach a reasonable standard they do not pass. But they are never allowed to believe that mechanical correctness alone constitutes good writing. Correctness, they are told, is an absolutely necessary but yet subordinate matter: good writing depends upon having something to say and upon getting it said.

The study of language is long and hard and necessary in order to write well, but the first thing is to have something to say and a sensible reason for saying it. The idea is the principal thing, the expression the subordinate. Without the first the second is meaningless, can not exist, much less be studied or practised or taught. Here is the weakness of composition work designed to offer "practise in writing." The attempt is made to give practise in writing to students who have nothing to say, which means that neither teacher nor pupil understands what he is about. Grades are given for a certain cleverness in juggling words, not for cogency of thought, and people are surprized when crack composition students from the universities can not write anything that one cares to read.

We grade the student on the subject-matter of his themes, according to the clearness and importance of his thought. We do not give him credit for the ideas he had in mind but did not express, altho we do and ought to pass plenty of students whose expression of their thoughts is far from excellent. A halting and clumsy expression of a real idea is worth a thousand times more anywhere and for any purpose than glib and facile emptiness. It is only from the point of view of the idea that the student can get a sound conception of the problem of writing. It is only when he is trying to say something, that he can really understand the difficulties in the use of words, and be made to see any path toward their solution. The themes are criticized in individual conferences, and there our method is to make the comments that each seems most to need, not trying too much to simplify the matter but endeavoring to make the student see the intimate way in which word and idea are linked together. We make the themes real work,

tests of thinking rather than practise in language. We try to put each individual in the way of making progress, to lead him as far as he can go, rather than to bring the whole class up to a certain level. Experience and reason alike show that this can best be done by keeping clearly before the student that the business of writing is to say something and by grading him on the quality of his thinking. This standard is an attempt to keep things in their true proportion and to judge by results. It is not a simple standard; instead it is a complex one, as every estimate of a finished result must be. But it can be applied with success where a simple one could not.

The subject-matter of the themes is closely connected with the reading done in the course, but they are not allowed to become "infant criticism" of the high school "book report" variety. The student's ordinary task is not to write about an author, nor about a book, nor even about a single chapter. Instead he is given one point to explain more fully, to comment on, or to relate to something else that he has studied. The difference between the two tasks is important: given a whole chapter to condense into a theme, the student becomes vague and the result is a confused jumble of badly exprest ideas; at the best the average undergraduate produces a synopsis which can be understood fully only with reference to the original, or a comment which he has not space to make entirely clear. The trouble is that he has been compelled to try to handle more material than he can hold vividly in his mind at one time. On the other hand, given a single point to amplify or discuss, the student has time and space to do himself justice, and if he understands it he will produce a clear explanation from his point of view, or a comment containing some real thought of his own. In practise we ask for comments only from the better students, advising those of less ability to content themselves with explaining clearly the author's meaning. We never ask for criticisms of style or for "appreciations," and they almost never come unsought. The student who is really getting a glimpse into the meaning of an author is usually too busy to prattle about style.

In all this work the business of the teacher is to be a good

audience—tactful, interested, widely appreciative, and intelligently critical. No one can write without an audience and the success of the composition teacher depends almost entirely on his ability in this rôle. He must be interested in the student's point of view, and must be able to make his students believe in that interest. One of the best ways of criticizing a theme in conference is to ask the student questions about it: What did you mean here? What would you say to this idea? Would that other one disprove your point? etc. Such a conference will show the student how far he has succeeded, wherein he has failed, and will give him a notion as to how to improve his work better than most formal criticism. Teaching of this kind demands that the instructor have time to read his themes carefully and to think about them, without which most composition work is useless.

With the other conditions right, the whole success of a course in English composition depends upon getting the student to take pains. Unless he is careful to do his best, no teaching will avail him much: if he is he can solve most difficulties for himself. A few grammatical forms and usages must be learned, but most mechanical difficulties are not really mechanical but logical. The construction of a sentence is purely a matter of thinking, punctuation is the same, so the paragraphing, and the choice of words is not a matter of knowing good from bad, correct from incorrect, but rather a matter of the meaning you want to express or, as we say, of the effect you wish to produce. Usage tells you not what word to use and what one to avoid, but what each word means in the fullest sense. Given a student who has a meaning and who is willing to take pains to express his meaning, it is easy to do the rest. He will not take pains unless he has a meaning; in other words, he must have a subject upon which he can say something worth while. And he will not take pains unless he has an appreciative and critical audience; there lies the teacher's duty. So that this matter of taking pains involves a good deal more than haranguing the students upon the necessity of it once a term or once a week. It is really a matter of getting the other conditions right.

When the student is hard at work upon an intelligible and important task he will see the truth of a good many principles which he will otherwise assent to only because he is bullied. For instance, that his style should attract as little attention as possible, that he should not "cover his meaning with a veil of words." I wonder at the artlessness with which I have heard that principle expounded in a course whose whole aim was the study of words with no jot of attention ever given to any question of meaning. Set clearly at the task of saying something, given credit for that and not for mere juggling with words, the student will learn to write as well as he ought. His themes will have as much force and individuality as he has himself. If he is not a user of words, that also will honestly appear, as it ought. He will come after a while to the point where improving his writing will mean improving his moral and intellectual character—and there the university has its task. Most students have reached that point when they enter, and only theme work which is training in thinking will do them any good whatever. In all these matters teachers are too often afraid to face the real problem—that of educating the man—and instead try to plaster him over and cover him up with a superficial glibness and cleverness with words—civilization from the outside instead of from within—which false theory is responsible for the failure not merely of much of the work in English composition, but of much of our university training.

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V

THE PRACTICAL ARTS IN LIBERAL EDUCATION

The place of the manual arts has been much discust recently with especial reference to vocational education. Some recent excellent papers also present, with new points of view, the bearing of the subject on general or liberal education.[1] The writer's experience with certain administrative aspects of both vocational and liberal education suggests a few queries which appear worthy of discussion at the present time.

Thanks to the developments of the last twenty-five years, we have a great body of experience on which to draw; and while much of it fails to assist our constructive thinking, it lends itself at least to the drawing of conclusions of a negative nature.

We shall be able to discuss this department of education more profitably if we confine ourselves to a fairly definite field. At the risk of seeming to narrow the territory unduly, the writer asks consideration of the queries and discussion hereafter presented, in connection with the area of child life comprehended between the ages of twelve and fourteen—the last two years or grades found in the typical American eight-grade elementary school; and in order that there may be no uncertainty as to the scope of the subject, he purposes to employ the term "practical arts" as a comprehensive phrase to include all such branches, studies, or exercises as manual training, manual arts, cooking, sewing, agriculture, printing, and related subjects, in which the conspicuous element in process and realization is manual activity in pursuit of concrete and objective ends, which are capable of being identified with the fruits of the vocational activities of mankind. These studies are, therefore, contrasted with those which constitute

[1] See especially Dean James E. Russell, The School and Industrial Life, Educational Review, 38: 433; and C. A. Bennett, The Place of Manual Arts in Education, Educational Review, 42: 245.

the rest of the elementary school program which are relatively abstract and involve a more intellectual approach. The following seem now to be important problems for discussion:

I. Are not the practical arts, as factors in the program of studies for the upper grades, suffering from a confusion of partially contradictory aims?

The error seems widespread that the same procedures will enable us to realize equally the ends of liberal and of vocational education. Experience now proves that we can accomplish the purposes of vocational education in a selected field by the choice of appropriate means and methods. However, these make partial and, often, only incidental contributions to some of the important ends of liberal education, which is education, not in production, but in broad and socialized utilization;[2] whereas, the procedures suited to a true liberal education may develop relatively little in the way of vocational power. The two forms of training face, if not in opposite, at least in widely divergent directions, as the experience of the ages testifies; yet in practical arts teaching today we are striving simultaneously to follow both paths. The results are disappointing to the partizans of each purpose; and the practical arts teacher meets the usual fate of him who seeks to serve two masters.

[2] Liberal education may be defined in various ways, but to the writer, the most serviceable definition is to be made by contrasting liberal with vocational education in the same way that production and consumption (or utilization) are contrasted in social and economic life. Vocational education is designed to make of a person an efficient producer; liberal education may be designed to make of him an effective consumer or user. The liberally educated man utilizes the products and services of many producers; but because of his education he uses them well, both in the individual and social sense. Thru the effective utilization of such products and services he raises the plane of his own life; and, none the less, he elevates the sources of the goods and labor which he employs. He uses good literature, rather than bad; he exacts from other producers expert rather than untrained and fraudulent service; in his contacts he puts a premium upon good taste, refinement, and right morality; and in the sphere of more material consumption, his demands lead to improvement both in the quality of the goods he obtains and in the social conditions surrounding their production. His utilization elevates himself and also the world because of his appreciation, his insight, his sympathy.

II. Is it worth while to insist on the vocational aim in the practical arts group of studies, when these constitute but a single feature, and often a minor one, in a program of general or liberal education?

Vocational education is increasingly necessary, and we shall see it constantly develop in appropriate public schools, and under conditions which promote in it real efficiency. In the general school, however, time as well as other essential elements are insufficient to permit the realization of genuine vocational power. Efforts in the direction of producing vocational efficiency as a by-product in a scheme of general education only take us into the land of make-believe. We have far too much of the resulting sham vocational education in America at the present time. On the other hand, the practical arts can be made to play an active and fruitful part in a scheme of liberal education. Let a boy in the spirit of the amateur make a few articles of wood, of metal, and of clay; lead him to try his hand at cloth-making, at tillage, and at printing; induce him to build on the resulting basis of rich, even tho fragmentary, experience, some comprehension of the social significance of the regions of enterprise into which he has made curious incursions—will he not, on this account, be a larger, more intelligent, more social man? Will he not more surely enter into the broad and civic utilization of the world in which he finds himself, because of the vital contact thus made possible? Vocational ideals, and capacity for intelligent vocational choice, may come from this wide, even tho superficial, participation; but we have no right to expect from it much in the way of direct vocational training. The schoolmaster has erred in thinking of vocational education as a semi-holiday affair, in which boys work in shops whilst wearing clean cuffs. Liberal education for child as well as man may well involve along with its more controlled aspects, leisure, the following of strong tastes, and the spirit and effort of the amateur, as he pursues his *avocation;* vocational education must be more serious, more effortful, closer to the realities of practical life in respect to the hours, discipline, surroundings, and strivings of productive labor. Let not vocational

education come too early; neither let it be too long deferred; but especially let it not be lost in following the will o' the wisp of manual training. A valuable contribution to liberal education can be derived from the practical arts, altho pedagogic formalism has largely prevented this result hitherto; and not the least important element will be the economic insight, the industrial intelligence and sympathy which, as Dean Russell shows, can be built up around the youthful amateur's participation in suitable phases of human occupation. Should we not, then, in practical arts studies, frankly differentiate liberal from practical aims, and quite firmly relegate the latter to the vocational schools?

> III. Is it worth while in the practical arts branches to defend longer a pedagogy of aims and methods based on psychological conceptions which are being discarded in other departments of education?

The very phrase "manual training" suggests the older notion that specific and intensive training in a restricted field would lead to general powers in habit, insight, and ideal. The idea still survives in the persistent efforts of writers on manual training to schematize "logical" courses, to enforce "type" studies, and to compel generalized appreciation of such qualities as the "artistic" and "workmanship." The failure to recognize the genetic order in the development of the powers of childhood is not confined to practical arts teaching, by any means; but such failure is peculiarly disastrous in a department where we had a right to expect such material and valid results of liberal education as permanent interests in the finer things of life, heightened appreciation of the output of shop and farm, and socialized experience in a variety of the channels of human effort. Would it not be better to take our practical arts subjects out of the cloudland of educational mysticism, and to rehabilitate them in a world where youthful instincts, contemporary ideals, a growing range of possibilities of social utilization, and the crudeness of childish and adolescent powers all have due recognition and interpretation? The normal child is insatiable in his desires to express in constructive activities and with concrete materials his dawning

appreciation of the world in which he finds himself; his efforts evolve gradually from the largely purposeless activities which serve for physical growth, thru those which minister consciously to the play instinct, and into others which foreshadow purposeful efficiency in the quest of the utilities of civilized adult life. Can our courses in practical arts not do more to seize upon and work with, instead of at, cross-purposes to these fundamental growth processes? Should not the youth whose creative instincts are strong, and who is destined to be a more or less socialized consumer of many wares from many hands, be encouraged towards a varied, even tho amateurish, participation in productive effort? Can we afford, in face of these opportunities, and in the limited time at our disposal, to lose ourselves in the formalisms, the correlations, the logical sequences, the questionable ideals of "finish," "thoroness," and "artistic quality," which have seemed to afflict the pedagogy of manual training, and, to a less degree, that of the household arts and the arts of tillage? Would it be greatly amiss to proclaim as our chief purpose in practical arts education, an enriched and varied experience along lines largely suggested by the interplay of youthful instincts and environmental influence, not least of which last would be the sympathetic suggestion of the child's teacher? Even tho such a purpose were to result in a considerable individualization of programs; in the general substitution of concrete "projects," each functioning directly in some preconceived end of worthy personal satisfaction, for schematized steps in instruction; and in the development of only moderate standards of thoroness and artistic quality; might we not, nevertheless, expect a more vital interest, a more real growth, and a richer contribution to the important ends of liberal education, because of the extent to which appeal is made to individual initiative and other qualities of self-active childhood? Granted the extraordinary administrative difficulties involved in such a program, we shall never learn how to deal with the difficulties in this sphere of action until we know towards what goals and under what impelling motives we are moving.

IV. Is it profitable to permit practical arts subjects to be

deflected from their important purposes by considerations of correlation?

This query is less pertinent in relation to upper-grade work than elsewhere; nevertheless, even here a satisfactory theory of purposes of practical arts instruction is confused by over-insistence on correlation. It must be recognized, of course, that we may yet evolve a program of school activities in which certain large strands or units of organized effort fundamentally related, on the one hand to the needs of genetic development in the individual, and, on the other, to the educative contributions of the environment, shall form the sources and provide the motives for the specialized and often fragmentary activities which now constitute the program of studies in the elementary school. This possibility should not, however, be made the pretext for the artificial attempts at correlation often found. Drawing and other art subjects, mathematics, science, vernacular language, literature, history, and hygiene, all have their applications in practical arts teaching, and this subject, also, makes at least incidental contributions to them in turn. A natural and unforced correlation is open to no objection; but most prevailing schemes to that end are impractical, unpedagogical, and fruitful of harm to all subjects involved. It may be doubted whether even the attempt to drive drawing and manual training in the double harness of correlation has not injured the teaching of each subject. In other words, until the Herbartian conceptions of a reorganized scheme of studies shall have reached the stage of a developed and tested program of teaching method, ought we not to regard each principal subject as involving its own essential aims, means, and methods, the realization of which can be assisted by a moderate amount of natural correlation, but which the supposed interests of a unified program must not be permitted to nullify?

V. In the present stage of educational theory, can we not find abundant justification for practical arts instruction based on a wide range of units, or projects, selected from the principal fields of industry, agriculture, and household arts, each adapted to the powers and

active interests of the stage of youthful development to be ministered to, and each designed to make only such exactions on the pupil as regards thoroness, scientific analysis, elaborateness, and conscious application of art and science, as shall prove fairly natural and profitable?

Men and women till the soil, fashion objects of wood, work metals, weave cloth, make clothing, prepare foods, print books, build houses, shape vessels of clay, manufacture shoes, erect machines. In these and other fields, applying creative activities to materials, they achieve self-development and a beneficent mastery of nature. From each of these fields it is possible to select units of achievement adapted to the powers of youth and tending to elicit its ambitious efforts. Furthermore, a large number of these projects function actively in the personal needs or social environment of youth; and they lend themselves as useful means of interpreting contemporary economic life, of stimulating vocational ideals, and of calling forth latent powers. Hence such a program contributes genuinely to liberal education, giving insight, appreciation, and ideals with reference to broad social utilization.

Suppose that the boy of twelve or fourteen choose his projects from the following: the growing of selected vegetables or other plants; the making of pieces of playground apparatus or articles of furniture for the home; the varnishing of a school desk; the cleaning and repairing of a bicycle, faucet, lock, or sewing machine; the sharpening of a collection of cutlery used at home; the half-soling of a few pairs of shoes; the constructing of some steps of concrete; the binding of some sets of magazines; the mounting of photographs or framing of pictures; the preparing of articles of food used in camp; the printing of a pamphlet; and the executing of hundreds of other undertakings which educational ingenuity can discover. If, within the capacity of the school, and the directive power of the teacher, he makes choices, and carries his projects to a successful outcome; if, in doing so, he reads, designs, compares, and is led to comprehend such scientific and artistic principles as are not too deeply involved in his work, will he

not have obtained a substantial addition to liberal education? Is it of fundamental importance that he shall have completed all the steps in some abstract series of exercises? Suppose he has not reached the degree of thoroness, precision, artistic or scientific appreciation commonly exacted by craftsman's standards—can we not apply here the same tests of childish growth and unfoldment that we avail ourselves of in other departments of the program of studies?

VI. In the seventh and eighth grades, must not the practical arts, as described above, always be taught by a departmental or special teacher, equipped to give guidance in as many of the foregoing lines as possible?

There is no other practicable way; such a teacher can hardly be expected to reach a journeyman's capacity in each of the special subjects, but he must have worked in all from which projects are drawn. He must be a "handy" man, resourceful, ingenious, sympathetic with childish crudities. It is improbable that any woman can carry out the program described for boys; and, equally, only a woman should give the work for girls. The importance of holding to the amateur's standards and spirit rather than to those of the journeyman must be insisted on.

The foregoing theory of manual or practical arts teaching finds analogies in certain other subjects of the elementary school curriculum, such as literature, music, history, hygiene, practical science, and civics. In the early stages of each of these subjects, modern pedagogy insists on the utilization of units touching the dominant interests, and not remote from the spontaneous learning powers of children. Literary selections which readily carry themselves into the graces of childhood; songs easily learned and retained; biographies, myths, and historical stories; attractively presented descriptions, interpretations, and admonitions regarding the conservation of health; explanations of natural phenomena, calculated to satisfy native and induced curiosity; and actual contact with, and conscious service in, the environing activities of social life —these are some of the instances where the ends of a true liberal education of children are being achieved by pedagogical

procedures wherein logical organization of subject-matter, formalism of method, and abstract standards remote from childhood are at a discount. Each subject presents later steps wherein organization along more rigid lines, and the employment of the more artificial learning processes, may be necessary; but the foundations of interest, imagination, and appreciation have then been laid. In practical arts teaching the place for drill, systematic approach, and approximation of journeyman's standards, is in the vocational school.

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VI

DEPARTMENTAL LIBRARIES IN UNIVERSITIES AND COLLEGES

The administration of the library of a university centers about the problem of departmental libraries. In most colleges also (and we must distinguish between American colleges and universities) this problem, tho less prominent, still persists and takes new forms as the functions of college and university libraries differentiate. The arguments presented here with special reference to universities will therefore apply in some measure to colleges generally, even to many that have assumed neither the name of university nor the features.

It is ultimately a question of special libraries versus centralization, as the librarians would term it. Are the best resources of the library to be distributed for the intensive use of special users or centralized for the more extensive use of the entire community? It is practically a question whether most of the books in demand are to be placed where they are most urgently wanted, and therefore to be duplicated for concurrent needs, or whether most of the books are to be used where most are placed, and, when needed elsewhere, are to be borrowed from the general collection, or segregated but for a limited time. It sometimes seems a question whether faculty or commons, whether aristocracy or democracy is most to be served; or, since both must be served in the really democratic and yet partly aristocratic community, by what means shall the often conflicting demands most happily be supplied?

The problem is very complex. Tho it has been ably discust by professors and by librarians, it has not yet been satisfactorily solved nor even settled, so far as the writer knows, for any university. Strong arguments have been set forth in faculty meetings, some weighty opinions recorded in the printed papers of librarians, and some interesting adjustments

and compromises for particular institutions have been described, but the inconclusiveness of these is apparent; few generalizations have been adduced, and few principles established. Among the librarians, however, there has been a tendency toward a consensus in favor of centralization for economy and efficiency, and this while the ideal of service has not been obscured. It may be well now to carry this discussion from the councils of librarians to the educational forum, and from the recurring facts and the consensus of opinion to essay to draw some broader conclusions and to state some general principles, as a possible basis for further study or for application to particular problems. Solution of the general problem may indeed not be feasible under the present conditions; but, if there is ever to be a solution, it will probably be derived not only from the experience and the proposals of librarians, but also from the investigations and the conclusions of faculties. This is not merely a librarian's question; it vitally concerns the larger administration of the university or the college, involving broad educational policies and very considerable economies of funds where needs are nearly always exigent.

The gravity of the question for a great university appeared in the discussions of the several committees of the University of Chicago during the years 1899 to 1902, from one of whose reports the following interesting statements are abstracted.[1]

"The Committee is impressed with the fact that the three years of discussion of this question have served to clarify and crystallize opinion in the Faculties, . . . But, . . . is still more strongly impressed with the unwisdom of . . . taking final action at this time. The question . . . involves the expenditure of a large sum of money, and, what is still more important, its decision involves the policy of the University on an important educational matter for many years to come. An error at this time might easily involve the waste of $100,000 of money or the hampering of the work of the University for a generation, or both. . . .

"The committee therefore recommends . . . a joint commission on Library Building and Policy . . . of representatives of the Board of Trustees and of the Faculty; . . . that a sufficient number of the Faculty members be released from the duty of instruction during the period of active service . . ."

[1] University of Chicago, *Decennial Publications*, 1st Series, vol. i, p. 271.

Departmental libraries in American universities and colleges are a natural outgrowth of conditions and of improved methods of instruction. In some form or other they are come to stay. We shall the better understand how deeply they are rooted, if we consider some phases of their development.

The college libraries of sixty years ago were random collections, largely donations of superseded treatises or useless tracts. They were circumscribed by prohibitive rules and were open in most cases only two or three days in the week and for two or three hours in the day.[2] Thirty years ago they were with few exceptions still inadequately supplied with materials for research and their service was very unsatisfactory. The professors were sometimes collectors in their specialties and brought their own books to the classroom for consultation. Others which they could borrow from the college library they would keep for an indefinite time. Occasionally gifts were directed to the professor's living collection rather than to the general cemetery. Soon the professor's bookcase no longer sufficed for the growing collection, and one of the rooms was fitted up with shelves. The books were then lent freely; there were hardly any restrictions or regulations, no conformity of methods, no articulation with other departments, no system of centralized records. That was the professor's departmental library, not yet the faculty's, in no wise the librarian's.

Then the German seminar, developed by Ranke, the historian, at the University of Berlin about the middle of the past century and "extended by Ranke's pupils thruout all Germany," was brought thence by American students on their return to our seats of learning. In 1869 what appears to have been the first American seminar was instituted at the University of Michigan by Professor Charles K. Adams. When he became president of Cornell University in 1885, he transplanted the seminary idea there too, and it was further devel-

[2] Jewett's Report on the Public Libraries of the United States, printed as an appendix to the Smithsonian Institution Report for 1849. Also W. N. C. Carlton's College libraries in the mid-nineteenth century, *Library journal*, vol. xxxii, p. 480.

oped there by Professor Moses Coit Tyler. Years before that it had rooted at Harvard.[3] At Columbia University, which adopted the seminar soon after Cornell, two grades were later distinguished, the elementary seminary instruction and the advanced.[4] Here and elsewhere the new methods extended farther into the college curriculum than the mere assignment of topics to undergraduates. Comparative studies became a feature of the courses; collateral readings were recommended and even required; recitations were supplemented with digests or reports showing ampler acquaintance with books. The single textbook fosters an illiberal learning, not true culture, whereas the contrasts of differing minds enliven thought, exercise the faculties of discrimination, and broaden the comprehension.

All this required books—many books and much duplication of books, and much liberalizing of library administration. But the college librarians were not yet prepared to meet the growing demands, or indeed were unfavorably disposed. The strict accountability to which they were usually held appears in the quotations from the statutes and rules of Harvard, Amherst, Williams, and other colleges, which Mr. Carlton in the article cited above gives with the astute remark: "This personal responsibility of the librarian for the collection committed to his care may in part explain his reluctance to see its contents withdrawn too far from his control and supervision."

The old-fashioned librarian, as we are wont to designate him, had come to regard himself as especially the custodian of books. He has so often been portrayed and in such vivid and engaging characters that a repetition of the picture here would be as unnecessary as it might be artistically inferior.

[3] An interesting account by Professor H. B. Adams of the beginnings of seminary instruction in American colleges appears in the *Johns Hopkins University studies,* vol. v, p. 433 ff. His allusion to the inception at Harvard is thus, in part: "In the alcoves of the Harvard University Library there has been quietly developing for several years a system of book-reservations for particular instructors and their classes, . . . here is a system of seminaries in process of evolution. . . ."

[4] Baker. Librarians' Conference in 1898, p. 106, *Library journal,* vol. xxiii.

I would merely suggest as an inscription, striking a quite modern note: He loved his library and his books more than the service of his fellow-men. Long after he had past from the public library he was found lingering in the alcoves of the college library. Tradition says that he is immortal and still abides in some secluded college.

The old-fashioned librarian and the new-fashioned professor thus shared responsibility for the later development of the professor's departmental library. The professor's demand was reasonable; the efficiency of instruction in his department, and indeed the transformation of the college into the university depended largely upon the free use of books. From the professor's collection and the seminar have been differentiated the several modern developments: the laboratory collection, the departmental reading-room (no longer the professor's merely, but the department's, or rather the faculty's), and the seminary collections, of which three developments are to be distinguished. Some have remained, as at Cornell, small segregations of books, in part kept permanently in the separate rooms, whether in the library or in the department, and in part borrowed from the library for a limited time. Other seminary collections have been merged with the general collections, the seminary rooms adjoining the main book-stack, so that the books are very accessible both for the seminar and for general use. This is well known as the Columbia plan. Modified to meet the special conditions, it has been adopted in several sister institutions. Thirdly, some universities have developed their research collections into special libraries, as in Johns Hopkins University. In a few cases, where a college or school has become affiliated with or incorporated with a university, there has been a redistribution of books in order to combine the resources. Thus Columbia University Library some years ago transferred its extensive collections on education to the Bryson Library of Teachers College, which a few years before had become incorporated with the University. Within the present organization of Teachers College are the subordinate schools of Industrial Arts, of Household Arts, and of Physical Education. The departmental

library of the School of Household Arts consists at present of some 2,500 volumes, mostly withdrawn from the Bryson Library. Here we have wheels within wheels. The administration of Bryson Library and its departments, tho cooperative, is almost independent. Its distance from the University's central library is less than a quarter of a mile.

Where the distance is so considerable that centralized service and supervision are practically impossible, as when the department or school is half a mile away or more, or even in another city, independent administration is a matter of course and cooperation is hardly more effective than with unrelated libraries. The special library in such case must needs be almost complete.

Distance is, indeed, at the very root of this ramifying question. The users of books are sometimes willing to traverse some distance to obtain them, be it a minute's walk or a mile; they may even welcome the pleasant compulsion to take healthful exercise between studies; they may find the mind the clearer when at length they have got the book; but they more often decline; they prefer to have their exercise otherwise; they are busy workers, impatient of loss of time and intolerant of inconvenience. The book is needed for immediate reference. The same objections are reasonable even where the distance is comparatively small. Professors say that they can not submit to the inconvenience of breaking away from their study to go across the quadrangle merely to obtain a book. If sent for in the midst of instruction, the delay and the interruption of a line of thought are intolerable. The books must be close at hand.

Ah! but there is another side to this, the economic, the limitation of funds. If books and services are needed here, there, and everywhere in an extensive university, must they be supplied with much duplication here, there, and almost everywhere? It is plainly a question of convenience versus economy. Can the problem be solved? Has it been solved satisfactorily in the several universities? Practical solutions must of course be adapted to the particular conditions, architectural, topographical, and administrative. Distances, incon-

veniences must be measured; costs, funds, efficiency, must be calculated or judiciously estimated.

It should not be supposed, however, that because the books are the nearer they will under all conditions be the more convenient. That will depend upon how large the collection is and how well it is kept in order. Accessibility implies not merely that the place of the book is near by, but that the book itself is in place. A departmental collection of 10,000 volumes to which users have free access may become a pathless wilderness in the course of a week. A collection of a mere thousand, daily set in order by a member of the department in a vacant hour, may be disarranged by users during the afternoon, and disappointments may be consequent the next morning. The professor is lecturing or writing or arguing a point; he mentions a book, and sends for it or seeks it himself; "he wants it," to quote Dr. Canfield's delightful humor, "as the Texas gentleman wants his revolver—right away;" it is missing without clue, and his vexation knows no bounds. In such case were it surprizing if thereafter the professor secured his own convenience in the use of certain books by withdrawing them from the very democratic department room to his aristocratic private study? And may not associates do likewise? Freedom of access may allow some liberty of withdrawal. Convenience and inconvenience here rub shoulders. This is one point at which the argument for convenience breaks down. The Texas gentleman has at most two or three revolvers, but the professor's equipment is not so simple a matter of weapons; he marshals a very legion of authorities, and there is no telling which book he may want right away. To supply this need completely we should have to furnish all departments with complete libraries, kept in perfect order under supervision; nay, but even this would not suffice; we should besides have to give all professors private collections and keep these in order likewise.

However, there are feasible adjustments. As Dr. Canfield reasoned—with better understanding and closer sympathy with the needs of professors than is usual in university librarians, for he had been president of a university—the professors may

well be given personal possession of certain indispensable books, to be kept in their own rooms and to be purchased preferably from departmental funds.[5] Other books of special character, not likely to be called for by other specialists, may be lent from the general library for an extended time. But the greater part of the occasional needs of instructors and of students may be supplied by a carefully chosen departmental collection. Of these books any that are likely to be wanted elsewhere should be duplicated for circulation from the general library, or for reference in the general reading-room. Some needs so related to the courses of instruction that they may be anticipated might be supplied by transfer of books from the general library, or even from another department. Books wanted infrequently may usually be fetched or sent from the general library, with service as quick as the conditions permit, tho of course with some uncertainty, which could not, however, be wholly eliminated without duplicating the entire collection or withholding all books from circulation, and, furthermore, adopting the principle that a book called for by an instructor and found in use in the reading-room should be taken from the user's hands to supply the more urgent need of instruction or research. This is bringing our argument to cover an extreme case, which should not often occur where there is judicious or liberal duplication. These considerations require that few books should be lent from the departmental collections, and that they should be available during the entire college day. This argument for circumspect selection of books, limitation of collections, and duplication in anticipation of demand, is backed by many weighty opinions in print, and interesting quotations might be given here if space permitted, but three citations must suffice.[6]

The distribution of a large proportion of the best resources

[5] J. H. Canfield, librarian (then) of Columbia University, at the Conference of Librarians in 1902, p. 174, in *Library journal,* vol. xxvii.

[6] H. L. Koopman, librarian of Brown University, *Library journal,* vol. xix, p. 25 of the Conference of Librarians in 1894. J. T. Gerould, when librarian of the University of Missouri, *Library journal,* vol. xxviii, Conference, p. 48. J. H. Canfield, then librarian of Columbia University, *Library journal,* vol. xxvii, Conference, p. 175.

of a library, without duplication, means the scattering or segregation of the books that are most positively in demand, the living literature in all departments of study. Thousands of the best books, not actually in use, are reserved and virtually inaccessible in seminary rooms, or in department rooms are only half accessible during but half of the day. In this the convenience to one department or to special students is offset by inconvenience to others. A committee of the University of Chicago urged that the collections for the studies of the humanities should be combined into three groups, "to the end that the libraries might be more efficiently and economically administered; that the readers and investigators might use them with less waste of time and energy; and that the work of the departments concerned might be brought into closer connection and harmony." [7]

The distribution of a university library's resources might better be justified, if the departments of knowledge were as independent of each other as have been the departments of instruction. But sciences and studies, however distinctive the special purposes and the central points of view, generally survey a much broader range of neighbor fields with some common ground. Certain neighbors have been involved in boundary disputes; but now fences are coming down everywhere, and most of us are living in some sense of community. There is a marked advance toward unity in modern science. How, then, should the literature of knowledge be partitioned? Chemistry, one of the most special of sciences, is now inextricable from physics. Mineralogy is interwoven with chemistry on the one hand and with geology on the other. As for bio-chemistry, it is a question whether it belongs most to physiology or to chemistry. These are examples from the natural sciences, which the University of Chicago faculties compromised to separate. The humanities, which they agreed were not to be so separated, are indeed more closely interwoven. Ethnography furnishes data to sociology as well as to anthropology; sociology is related to psychology, and this to physiology; folk-lore lies at the threshold of comparative

[7] University of Chicago, *Decennial Publications*, 1st Series, vol. i, p. 166.

religion and also at that of literature; the history of literature and the history of society go hand in hand, while economic history walks now with political history and now with economics; economics goes shoulder to shoulder with sociology on the one side and technology on the other; technologies are counterparts of theoretical sciences; and finally theories, principles, the fundamentals of sciences merge into the special extensions or the special problems of philosophy.

In view of these complications, how shall the books be apportioned and distributed without endless duplication? It is difficult enough merely to classify them. A large proportion of them are likely to be of interest to students in several departments. Sooner or later the departments find that there is less advantage in standing alone than they had supposed; and it remains for them to realize the greater advantages of cooperation. One by one the great university libraries are taking steps in this direction. The librarian of Yale states in his report for 1910 (p. 38): "The fact that during the past few years a number of departmental libraries have seen their advantage in putting themselves under the management of the University Library points to an extension of that method of conducting their affairs." Harvard, by recent action, has advanced farther than Yale toward central organization. The University of Chicago has been a decade in advance of Harvard, at least in her plans, tho these are not yet all realized. The scattered departments there have been combined into groups, with a library for each group, and for the humanities these group libraries are placed in a congeries of connected buildings so close that this aggregation of groups is virtually a unity, and might more conveniently and economically be so in reality. A somewhat similar plan of grouping departments in several buildings, each with its library, and with centralized administration, is being developed at Columbia University.[8] Brown University has come still closer to cen-

[8] "The book collection in each building shall be administered as a unit and in either of these three ways: (1) by consolidation of collections, (2) by centralization of service, (3) by cooperation of the departments interested." A Regulation of the Library Committee of the Trustees, dated January 3, 1911, quoted in the *Columbia University quarterly*, March, 1911, p. 191.

tralization. The report of a recent joint committee on the library, after quoting a resolution of 1893 establishing even at that early date the principle of centralization, continues:

"It is recognized that while a university library finds its main usefulness in serving current instruction and research, it still has a field as a general library for reference and culture, . . .

"The convenience of individual departments places the emphasis upon separation, but the more important considerations of convenient and economical administration, safety from fire and loss, as well as the effectiveness that attaches to a well-rounded, large, and unified collection available to the entire university public, call for emphasis upon the claims of the main library." [9]

The recently installed John Hay Library is for Brown's general collection and for the central administration; and it will also contain the special collections, except the John Carter Brown Library (for Americana), which will continue to occupy the beautiful building erected for it a few years ago, a furlong away. "Nearly all the department libraries not connected with the laboratories will be accommodated in the old building; and the latter will communicate with the new by means of an electric book-carrier, thus making available to readers in either building the resources of the other, . . ." [10] This is approaching very closely to the ideal. May the architects take notice, and also the university presidents.

Having considered accessibility and convenience, that is, the economies of users, let us further consider the economies of administration, the cost of duplicating books, of extra space, and of additional service. The economic aspect, the inadequacy or poverty of funds, like the very poor of Scripture, is with us always. For the less prosperous institutions it is indeed poverty of funds; for even the most affluent it is inadequacy. Yale's librarian in his Report for 1910 (p. 5, 6, and 10), presents the matter thus:

"With the growth of the library as an important factor in the educational work of the university, the financial burden upon the university

[9] Report of the President, 1910, p. 68.

[10] Handbook of the John Hay Library, 1911, p. 10.

must necessarily grow, unless the library's invested funds are largely increased. . . .

"Nowadays the character of instruction is such that it requires the students, even in the lower classes, to have at hand and constantly use a large collection of books, . . .

"New departments of study and investigation are constantly being opened up, calling for a large outlay of money on the part of the library in supplying desired material in these fields, . . . Without satisfactorily meeting these demands the instruction in such lines will inevitably suffer, if it has not already suffered."

A large continual demand usually necessitates some duplication of books, however they are placed, and such duplication is serviceable, not uneconomical; but, where the duplication increases chiefly because the demand is distributed, it may be needlessly wasteful. This applies forcibly to the duplication of expensive works of reference, to sets of periodicals, and also to standard authorities. How many sets of *The encyclopædia Britannica* would be requisite for the several reading-rooms of a great university? How many subscriptions to the costly *International catalogue of scientific literature* at over eighty dollars a year for each? A standard work on sanitary engineering or on the nervous system may be wanted in three or four departments. Where the demand is frequent and constant, duplication is proper; but where the demands do not often conflict, the duplication is really unnecessary, if there be good service and cooperation. The departmental collections might indeed be kept compact, if we could realize the ideal of Mr. Gerould:

"The university library exists for the whole university—all of it for the whole university. In an ideal condition, every book in it should be available, at a moment's notice, if it is not actually in use. This should be our aim, and it should be from this viewpoint that we should judge the efficiency of our administration and the value of any proposed change." [11]

This is not an ideal merely; it is "our aim"; it is nearly attained in well-organized public libraries, and it shall be approached in university libraries too, despite the greater complexity of their relations, when they are equally well organized and when cooperation with the departments is effective.

[11] From the article cited above.

As departmental and seminary collections expand into special libraries, the extra space required leads to additional building. But modern architecture is costly. Then special libraries need special custodians. Without supervision, the collections fall into disorder, there is no assurance of locating books, and many volumes are lost. The rooms tend to lose their character of reading-rooms and to become a resort for conversation. Where, however, it is feasible to employ a custodian who is also a specialized reference librarian, the assistance he may render may justify the cost of the room better than the convenience for which probably it was established. The special libraries should be open during the same hours as the general library. Funds being subject to so many demands, it is an acute question, even for the most prosperous institutions, whether competent service to maintain a congeries of special libraries can be afforded. Special custodians do not insure effective service and satisfaction, unless there be cooperation between the departments and good organization. Without this, the division of responsibility results in evasions and waste, losses and inefficiency.

Of less importance, but still a considerable item of cost, is the compilation of records and catalogs consequent upon the distribution of the collections. This involves more technical detail than those unfamiliar with the complexities would suppose. Where the collections are extensive, separate catalogs are needed in the departments. Some of our universities have gone farther in providing for some departments catalogs of all the resources of the library in the related subjects. On the other hand, the temporary lending or deposit of books requires, under any adaptable charging system, but comparatively simple records.

The argument for convenience is supplemented by the plea for freedom in the use of books, even at the cost of care and responsibility on the part of members of the department, or of extra service for attendance and supervision. This view has been well stated by Mr. Hicks, of the Columbia University Library:

"The reference use of books in department reading-rooms is intensive because the collections are selected, not too large, and less confusing to

the student. All the books are on open shelves, so that, within limits, the student may browse at will. There is no formality, and books may be found without consulting a complicated catalogue." *Columbia University quarterly*, March, 1911, p. 187.

Freedom in the companionship of books is a most desirable thing, and students nowadays can hardly be induced to make too much of it. But, so far as this argument for freedom is superposed upon the argument for convenience to the department, it is like a misplaced cockade on a misshapen hat. Does freedom increase with the distance from the center of the university? Or does convenience, to the majority? Rather does the hindrance of all who are outside of the department, besides the hindrance in service, in cooperation, and in supervision, increase with the distance at which books in demand are segregated.

But there is another aspect. Students need guides and books interpreters. Catalogs, bibliographies, and bookish talk have their places, but they are not sufficient for all purposes. In many cases instructors or specialists are more competent to give guidance. This is one of the strongest arguments for special reading-rooms, where funds permit the employment of a number of qualified reference librarians combining bibliographical with broad scientific and some special knowledge. But the limitations of this kind of service are patent; for the sociologist or technologist can hardly cover the very broad field comprised by his collection so as to satisfy all requirements of the special workers who are likely to consult him. More intensive, however, may be the assistance given to students by their own instructors. The department of Political Science in the college with which the writer is connected manages its library very effectively in this manner. The members of the department in turn spend each an afternoon working with the students among the books. This is an extension of the principle of the seminar. Its maintenance depends upon the willingness of the instructors and their freedom from other duties and engagements during the hours of the demand.

But, however commendable as seminary instruction, this intensive work tends to confine the interests of the students to

the scope of the department and thus to limit their mental horizon and their culture. The student's mind should not be wholly occupied with two or three specialties. If these are to be developed, it should be upon a broad basis. This is one of the Harvard "ideas," and is upheld there even in the schools of applied science. Yet how dominating even in Harvard overspecialization may become under the elective and the departmental system appears from the courses criticized by Mr. Slosson.[12] Viewed from high ground, this consideration may be of greater importance than either cost or convenience. Training for efficiency is indeed intensive, but true culture is comprehensive. Training prepares the man; culture improves him. The best men with the highest abilities are produced by education that not only develops purposes and faculties, but which correlates the data of the sciences within a consistent and stable philosophy and which engenders a wholesome sympathy with human life in the foreground of the perspective of human history. The college provides a foundation for this true culture, and to this the college library contributes some of the best elements. A small margin of time may by the average student be spent to good advantage under the broadening influences of the "university of books." In the college reading-room, or undergraduate study, where so much prescribed work must be done, students may derive inestimable benefits from occasional digressions following their inclinations, or from a desultory perusal of *belles lettres*. More attractive, however, to the student of literary tastes and more conducive to his literary refinement is the "select library," proposed in 1894 by Mr. Koopman, librarian of Brown University, and developed also in some other libraries. In the beautiful library of Bowdoin College an easeful, retired room invites the lover of books and refined surroundings. Professor Benson, the genial Oxford essayist, in his mellow little book entitled *From a college window,* gives us an essay on "Books," which to me seems one of the best on this fond subject, and one of the best things in this essay is its plea for "the ethical motive in reading." Let us find space here

[12] Slosson, *Great American universities*, p. 12-13.

to repeat wise words of his: "And thus, as I say, the reading that is done in such mood has little of precise acquisition or definite attainment about it; it is a desire rather to feed and console the spirit—to enter the region in which it seems better to wonder than to know, to aspire rather than to define, to hope rather than to be satisfied."

For the faculty, too, it would indeed be well to provide a special, more retired reading-room. For relaxation and refreshment it behooves student and instructor as well to leave the specialized pursuit in the literature of knowledge and to abide for a fortunate and perhaps memorable interval with the literature of power. It is not in the seminar only, under the guidance and influence of an inspiring intellectual life, that the more perfect knowledge is nurtured, but in communion with the living inspiration of immortal books in their sanctuary. Where so much is spent for architecture and equipment, perhaps not all wisely spent, were it not well to appropriate some portion for this ideal and purpose? So far as the inspiration of books is to be regarded, is it really, then, more impressive or effectual to array in the several departmental reading-rooms the standard authorities and the important monographs on the closely related subjects than it is to garner in a room special only for its refinements the chosen writings of all literatures for the culture of receptive readers, and to complete the larger central reading-room with a representation of all sciences for the information of all students?

Convenience, freedom, efficiency, cost, educational aims, and cultural values, these have been considered, but there is one more argument that professors have brought forward. It is asserted that the departmental collection may be developed the better under the care of the professor. This may sometimes be true and sometimes not so. There is evidence on both sides. But, in having entire charge, what advantage does the professor find to compensate for the care and responsibility? What hindrance would he experience in cooperating with a librarian who has a central point of view and comprehensive methods, and also a proper ideal of service? Why does the professor argue for *care* rather than for *cooperation?*

Does he complain of the selection of books? But has it not been by the professors chiefly that these collections have been built up? The librarians have sometimes cooperated with the professors, supplied apparent needs or checked disproportionate growths; and, on the other hand, the professors have sometimes merely cooperated with the librarians, recommending good books, condemning the valueless, and indicating deficiencies. While the services of the librarians are needed, the cooperation of the professors is indeed necessary. They know the special literature; they know the special needs; and they are usually men of liberality and integrity. Tho many librarians have been esteemed as men of broad interests, and tho a few have indeed attained distinction in scholarship or been prominent in affairs, the majority have seemed of distinctly lower mental stature than their compeers in the faculty. But no one mind should be held competent to select books for all the subjects comprized by a university library.

On the other hand, it has not seldom been found that under the management of the professor the departmental collection has been neither well developed nor satisfactorily administered. The professor's interests may be too special for this purpose. The collections are sometimes evidently lopsided, developed with reference to a few specialties. However liberal most professors may be, it would appear from published statements that it is not well to commit entirely into their hands either the management of the special libraries or even the selection of the books. What is wanted, then, is cooperation between professors and librarians. Method, which is part of the librarian's professional equipment, may make up to some extent for his lack of knowledge, and he should prove of assistance to the department in furnishing and economizing its collection. Moreover, since the interests involved are broader than the department, the selection of books, as well as the apportionment of funds, should to a certain extent be regulated by the faculty and its committee, and the cooperation of the departments should be organized with centralized administration and service.

The foregoing arguments and the conclusions to be drawn

from them are centered about three main questions, that is, they may be viewed from three different aspects—the question of convenience, the question of economy of funds, and the question of educational aim. For convenience and freedom in the use of books the departmental collections have been established and should be maintained. But they should be for reference and for laboratory use rather than for lending, for research, or for storage. In the laboratory a special collection is indispensable, but it should be restricted to the necessary books, and these should not be subject to outside demand. The departmental reference collection is well justified so long as it is compact and accessible to all during the entire college day, and so long as the books that are desirable for lending are duplicated in the central library for circulation. Elementary seminary instruction may be conducted in the department rooms, but the advanced seminar should be contiguous to the research collections centralized in the main library. By segregation of the books for the convenience of the department the workers in other departments are inconvenienced. In view of the interrelations of sciences and studies the distribution of the resources necessitates expensive duplication of supply or else inconsistent refusal to satisfy reasonable demands. Cooperation, by which duplication may be minimized, is effective only thru centralized service and supervision. Of these conclusions there can hardly be question, and they are becoming established in a consensus of opinion based largely upon experience and upon comparative study of needs and of conditions. Here, for instance, are the words of Mr. Bishop, reference librarian of the Library of Congress, formerly of Princeton University:

> "If centralization meant any less efficient service, any increase of expense, any considerable loss to faculty and students, it should be opposed most vigorously. But it should mean the exact opposite of all this. Centralization in management, and even the physical concentration of books in one building must produce economy of time, of money, and—always providing a sane architectural plan is secured—greater convenience to the greatest number." (*Library journal*, vol. xxvi, p. 18.)

The sense of ownership developed with the acquisitiveness of the professor's departmental library. As the collections

grew and the responsibilities increased, it was found that their administration was not always liberal and efficient. The advantages and economies of centralization have now become manifest. The ownership of all the collections should be regarded as residing in the institution at large, under the direction of the trustees, under the supervision of the library committee, and under the custodianship of the librarian and his staff. These relations should be adjusted in the interests of immediate responsibility and economy of service and supervision. Purchases for all the collections should be made thru the central office and the records should be kept there. As the departmental collections are for convenient reference, not for storage, the selection should from time to time be revised. New books will displace older and less used books, and these should revert to the general library. The funds for the purchase of books should be apportioned by the library committee, or by a larger special committee of the faculty, according to the needs and uses of the departments. Books should be purchased from other funds or accepted from donors only upon condition that they are to be incorporated into the system and subject to the regulations. The selection of books for the department should be made thru the head of the department, subject to the revision of the librarian and the library committee, and should be related to the specialties of the department rather than to those of individuals, to whom the service had better usually be rendered by the general library.

Administrative measures, however, must be adapted to the topographical and architectural conditions. There has been an immense development, from the disciplinary college to the liberal university. The body of students has expanded tenfold and has become distributed in a complex of relations that is even more amazing than the labyrinth of buildings that comprises them. Architectural ideals, perspective, the love of landscape, the loveliness of lawns and trees, of paths and vistas, the natural fondness of the broad-minded for broad prospects, these have determined the physical aspect of our universities more than regard for convenience in work and economy in expense. If there had been less princely donors

and if the architects had been less magnificent (in the Latin sense of the word), if these cities of learning had not grown, as cities do, by additional building more than by rebuilding, they might have been planned with truer foresight and with wiser regard to the advantage of centralizing an educational center. The presidents, professors, librarians, and architects might now plan better and more magnificent edifices in better perspective and proportion than we have in these aggregations of ill-assorted structures, and in better unity of style comprising the diversity of purposes.

At the center of the university should be placed its administrative offices and records, and its library with all its resources. A comprehensive reference collection should be in the general reading-room. The general collection of periodicals, the undergraduates' study, and the "select library," should be in adjacent rooms. The seminary rooms for research should adjoin the book-stacks as near as possible to the main subjects of the studies and yet not at an inconvenient distance from other related resources. The central collection should therefore be well classified upon a basis of modern science and with practical regard to the correlations of modern studies.[13] The departments of instruction, with their lecture halls, classrooms, laboratories, museums, etc., and their special reading-rooms with their reference collections, would congregate about this center as closely as architectural accommodations would permit, in adjacent or even in adjoining buildings connected by bridge and mechanical book-carrier and by telephone. Some might indeed be beyond a campus or quadrangle, but only those should be distant which depend upon some advantage in the location, such as that of a city to a college of law or of medicine, or of forests, fields, or foundries to the related technologies. A little beyond the lawns might be the dormitories and the clubhouses. Somewhat apart, the gymnasia, the athletic fields, the tennis courts, the places of recreation, might have more wholesome freedom in open spaces, while theaters and parks might afford the architects

[13] A system developed for this purpose by the writer was outlined in the *Library journal* of August, 1910.

larger opportunities for esthetic creations with perspectives and landscapes.

The idea contemplated supposes some limit to the number of students and to the number of books. Our universities as units or centers are not likely to develop beyond the possible capacity of such a plan. Architects of ability would probably not recoil from the problem of planning thus for a university of 10,000, or even of 20,000 students. But is there not a limit rather to the capacity of an educational community to accommodate and assimilate a multitude with success in educational aims? If an institution should ever become too elephantine, its cultural and social "atmosphere" would probably deteriorate sooner than its architectural plan would prove to be inadequate. Some anticipatory objections have already been made to undergraduate Harvard. These objections, however, apply less to graduate schools. The very interesting recent suggestion of President Taylor, of Vassar College, occurs to mind in this connection.[14] Still, even should Vassar ever have a duplicate college, she would have but one library. Was not the President of Vassar one of the first to proclaim the idea that "the library is the very heart of the institution"? President Harper is accredited with having gone farther in prophesying that the library tends to absorb the whole university. If correctly reported, this may still seem utopian; but the truth that is there for us is that the university and the library are an inseparable unity. This has already been half realized by the University of Chicago. During the discussions there in 1901, Professor Judson, now President, exprest his view thus:

"An adequate solution of the problem would seem to me to lie in combining the departmental libraries so far as possible with the general library. The department library might consist of a collection of books gathered in a single room adjacent to the main stacks. In that case, books not found in the library, but which the student desires to use, can easily be obtained, and transfers in both directions would be exceedingly easy to make."[15]

[14] EDUCATIONAL REVIEW, June, 1911, "The problem of the larger college."

[15] *University of Chicago record,* vol. v, p. 2.

"Primarily the center of the so-called humane studies, the library is in a fundamental sense the center of all studies. It is the home not only of the books we consult, but of the books we read, and it is the books we read that sharpen our minds and kindle our emotions, thus preparing us to become competent students in whatever branch of knowledge our special instincts and capacities may lead us to pursue. There is no broad-minded teacher who does not prefer to instruct students who have been and are fairly wide readers. This is but to say that there is no thoroly qualified member of the university who does not recognize the paramount importance of the library." [16]

A university is much more than its library; it trains men not merely to read, but to reason. We may well bear in mind, however, the words of Carlyle: "All that the university, or final highest school, can do for us is still but what the first school began doing, teach us to read."

The question of educational aim may be debatable eternally; there are currents and eddies in educational as in all progress; but the present trend of specialization has been turned by its counter current where Science and Technology have found that they are brain and hand of the same ascending human will, whose higher thought is Philosophy and whose higher expression and creative realization is Art. Have we here a question of training for efficiency or of education for culture? The best efficiency in a socialized environment is not acquired thru mere specialization; nor is the best culture in humanized life attained without the self-realization that arises from special efficiency in some human activity or art. Our colleges and universities should foster both these educational aims or ideals. In this preliminary world of men and books, of student interests, athletics, and social diversions, it is the library, and more particularly the "select" student library, that largely provides for the culture of the unfolding mind in freedom of access to all science and all literature, in companionship with the wise and noble of the present and of

[16] Editorial in the *Columbia University quarterly* for March, 1911, p. 243.

the past, and with the immortal thoughts that go forward into the future and abide forever.

Some day when we have done with erecting donations from sometimes ill-gotten wealth into architectural monuments in commemoration of the liberal or lordly donors, our great institutions, our cities or states, or nations, may provide still more liberally for building greater temples to the unity of man's knowledge. Nobler artistic forms may then have larger cultural influences on the mind of the community. It would indeed be fitting that an all-comprehensive library should be at the center, and around this the circle of studies—books, and the teachers who open the resources of books.

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VII

THE MANCHU DYNASTY IN CHINA

School and college teachers who wish to inform their pupils as to what is happening in China will do well to make use of the following admirable article, which was contributed to a recent issue of the London *Times*. [THE EDITOR.]

The name China retains for most of us the romantic flavor which it has possest for many centuries. To the ancients it represented the shadowy region whence came the silks and brocades which great ladies delighted in, as they do now, and whence occasional specimens of porcelain, white or green or imitating various colored hard stones, made their way across unknown deserts.

So it remained until in the thirteenth century an outburst of quite a unique kind occurred among the nomads of the great Asiatic desert, which finally led to the conquest of all the known world from the Sea of China to the Carpathians. The Russian Empire became tributary to the great Mongol Khan, who had his imperial seat in China. Hungary was desolated, the Prussian knights were destroyed at Presburg, while Baghdad was laid in ashes, and an end was put to the Khalifs and their splendid rule.

The result of this conquest was the union under one chief for a great many decades of a vast empire stretching from the Persian Gulf and the Black Sea to the Pacific, and for the first time China past out of the realms of mist and fog and became a reality to the Western world. Travelers with picturesque pens, among them the unapproached *raconteur* Marco Polo, wandered to and fro between Europe and "Cathay," and caravans exchanged the commodities of the East and West at the same time. Many discoveries, such as the printing

press, banking, the mariner's compass, gunpowder, etc., made their way hither, while China itself was flooded with new ideas, especially from Persia.

THE CHINESE PEOPLE

It can not be said that the new light thus obtained did much to dissipate the romance and mystery surrounding the wonderful Land of the Rising Sun. The gap between ourselves and the thought and the taste of its picturesque men and women drest in satin robes, with their often impassive yellow faces and slanting eyes, seemed complete. Their language was so uncouth in structure, their writing so strange, their several religions (one more curious than another) so puzzling, their buildings, especially their pagodas and temples, their ships, their wonderful porcelain and lacquer, their family life, their moral and political theories—all these lookt like products of another world. Artists, dramatists, and picturesque writers reveled in painting the oddities of these queer and yet most attractive people.

No wonder they differed so much from us, for never, save in the case of Japan, did a civilized human community live such a secluded life for so many thousand years. Nature had been kind to them in this respect; except on one side it gave them impassable frontiers—on the east the sea, on the west the mightiest group of mountains in the world, Tibet; on the south stretches of wild country thinly peopled. On the north alone was the way open to the invader. In this vast *cul-de-sac* the China we know originated and grew. Whence its people originally came we know not, and, so far as available evidence goes, they answer more nearly to what the Greeks called autochthones than any known race. They are remotely akin to the Tibetans in speech, while in this respect they are as far as well can be from their neighbors in Manchuria, Mongolia, and Turkestan, in Korea and Japan.

THE "HUNDRED FAMILIES"

In the forests and hills of southern China numerous scattered and primitive tribes exist, for the most part classed by

the Chinese under the name Miaotze. They no doubt form the wreckage of the once continuous population of China south of the Yangtsze River before it was conquered by the Chinese. The land between the latter and the so-called Yellow River is the original home of the Chinese race, the so-called "hundred families." Here it was doubtless developed, perhaps by the combination of several elements in primitive times, and here it has past thru several vicissitudes of glowing life, artistic skill and splendor, political and moral progress, interwoven with other periods of almost Byzantine stagnation. Each revival was apparently coincident with a huge graft of fresh blood and fresh ideas imported from beyond its frontiers when China past for a time out of the hands of its own folk and became subject to the foreigner. In each case there was a culmination of prosperity followed by dire decay. The most famous of these conquests, and perhaps the most important in its effects on China, was the Mongol domination above mentioned, which lasted about one hundred and fifty years. Those to whom the name Mongol is unfamiliar will remember the famous and very enlightened ruler of this dynasty apostrophized by Coleridge as Kubla Khan. In the middle of the fourteenth century the Mongols were driven out, and the Chinese recovered their own again. The native dynasty which then succeeded, which is known as the Ming dynasty, is familiar enough to the students of Chinese art for its fine porcelain and painting. It was no less a great period of renascence in literature, and some of the mightiest in bulk and most encyclopedic works which the world has seen were then produced.

The Ming dynasty lasted till the fifth decade of the seventeenth century, when China was again conquered by another race of foreigners whose name is familiar enough to us all—namely, the Manchus.

THE MANCHU RACE

Who, then, were the Manchus? The long northern frontier of the Chinese Empire is bordered by three races. Physically

they have certain marked resemblances in their yellow skins, scanty beards, slanting eyes, and flat faces. Their languages differ very considerably in vocabulary, but are akin in their grammatical structure. They have, however, had quite distinct histories from early times, and it would be easy to exaggerate their kinship. The three divisions are the Turks, the Mongols, and lastly the Manchus and their relatives. Once the eastern Turks were dominant north of the Chinese Wall, but they have gradually moved westward, being now grouped round the Altai Mountains as a nucleus. The Mongols lie to the east of them in the deserts of Mongolia so called, while east of the Mongols is the old homeland of the Manchus, which we call Manchuria.

The Manchus before their conquest of China occupied the southern part of that very fertile region and were really the civilized and cultured portion of a widespread race which extended to the north of the River Amur and included the Russian province of Dauria east of Lake Baikal, and are known as Tungus.

It must be remembered that when they conquered China the Manchus were in no sense barbarians. Their country was very fertile, they had large and prosperous towns, fine roads, and a literature largely consisting of translations from standard Chinese books, especially Chinese Buddhist works. They were a vigorous, warlike race, well trained and armed, and their royal family was also a gifted stock. The Chinese, while possessing a considerable capacity for self-government, have never been very tactful overlords. Exacting, at times cruel, and always supercilious, they have had many troubles with their dependent satellites, the chief offenders being their frontier agents or the residents at the neighboring courts, whose ways have been too often intolerable and their rapacity unbearable. It is not wonderful, therefore, that the Manchus should have lived on bad terms with their suzerain at Peking. They doubtless continually remembered that they had once been masters of northern China, which when conquered by the Mongols was ruled by a dynasty of the same race as the later Manchus, and known as the Kiu, or golden, dynasty.

THE FIRST MANCHU EMPERORS

Frontier fights continually occurred, and at length the Manchu ruler, Thai Tsu, a person of singular gifts and strength, determined to invade China, where the army was no match for his fine soldiers. This took place in 1619 and the following years, and ended in the conquest of the empire and the substitution of a Manchu dynasty for that of the Ming.

The successors of the first conqueror were men of great force and ability, and notably two of them, who had long reigns which were as remarkable for the revived prowess of China in the field of arms as for its renewed virility in the fields of art, literature, and diplomacy, and the country was well governed and prosperous. The two great men were known as Kanghi and Kienlung.

Vigorous campaigns were fought on the northern frontier and the vast area occupied by the Mongols, and the more eastern Turks were thoroly subdued, the emperor himself taking part in them. Trade was prosperous, and with it came the improvement of the larger towns and the encouragement of progressive theories. The Jesuit and other missionaries at Peking introduced a knowledge of astronomy and had a well-fitted observatory. The greatest and most brilliant period in China's artistic history for many centuries was coincident with the two reigns just mentioned, and when we march thru galleries of splendid porcelain, like those of Mr. Salting or Mr. Pierpont Morgan, we do not forget that most of the matchless pieces come from the end of the seventeenth and the first half of the eighteenth century, and are labeled as of the time of Kanghi and Kienlung. They also continued the excellent traditions of the Ming dynasty in the manufacture of cloisonné enamels and of red lacquer.

Meanwhile a great literary revival took place. The emperor himself wrote poems, and one example of them may be seen cut on a series of tablets of jade at the British Museum. Most of the literature was, no doubt, translation, but it was translation on a great scale and very useful to the foreign

scholar, who thus got a good guide to the ambiguities of Chinese text in the much less ambiguous Manchu translations.

Presently a great colonizing movement took place. The Chinese poured into southern Manchuria, settled in large numbers in Malacca, and secured a large trade in the seas of the Eastern Archipelago.

A GROWING REACTION

This period of enlightenment was followed by the usual nemesis. The Chinese have always ended by absorbing their masters. It was the policy of the Manchu conquerors to garrison the country, especially its northern provinces and the capital, largely with men of purely Manchu blood. They were organized in a number of special regiments known as Banner men. This was natural, since the Chinese had ceased to be a warlike race like themselves, and they knew well that they only kept China by the sword and were strangers encamped in the country. The imperial family, the very numerous imperial princes, and the greater part of the military and naval commanders, of the local governors and grandees and officials, were of Manchu blood and drawn from Manchu families. This was naturally resented by the Chinese, more especially since the Manchus had in so many ways ceased to be foreigners. They had, in fact, almost entirely abandoned their language and become Chinese in speech as in dress and in their mode of living. What aggravated the situation was that the long-inherited capacity for passing examinations made the Chinese preeminent in the state competitions among the schools and colleges and made the relative inferiority of the royal and military caste more obvious. It made it also harder to bear when so many high places were reserved for their less equipped masters, who were exceedingly truculent at times in their treatment of them.

All the while, as happens continually in such cases, the great wealth accumulated in the ruling and aristocratic caste led to unrestrained luxury and to all the vices incidental to polygamy. The actual helm of the state past out of the hands

of the masculine type of ruler who controlled the earlier period of Manchu rule; women and favorites, with the sexless attendants in the harems, got more and more control of affairs, and the rulers became more and more feeble and debauched. Especially aggravated did the state of things become when a most aggressive, strong-willed, avaricious, and imperious old lady became absolute master of the palace and its potent machinery, and piled up huge masses of gold and silver bars, while she interfered at every turn with critical matters of state, and her eunuchs sent dangerous critics to the land beyond the stars.

No wonder that the Chinese have been very restive indeed for a long time under this intolerable régime and have made more than one desperate effort to break the yoke in more than one very bloody rebellion. They have great traditions; no pedigree among the nations is older than theirs; they have shown on many occasions that they can produce men of sterling ability. They are given to study, and are panting to be free from the trammels that bind their public and private life and cramp their ambition, and are determined to be rid of the incubus which smothers every effort they have made. They feel continually humiliated when they think of the object lesson which is always present to their eyes as a symbol of servitude—namely, the pigtail, which most people fancy is a peculiarly Chinese institution, while in fact it was introduced by the Manchus as a badge of submission to them.

VIII

REVIEWS

Undergraduate work in mathematics in colleges of liberal arts and universities—Report of American Committee X of the International Commission on the Teaching of Mathematics. United States Bureau of Education, Bulletin, 1911, No. 7. p. 30.

Training of teachers of elementary and secondary mathematics—Report of American Committee V of the International Commission. United States Bureau of Education, Bulletin No. 12. p. 23.

The Bureau of Education continues its admirable service to teachers of mathematics by the publication of these two reports, the first of which has been prepared under the direction of Professor Clifford B. Upton, of Teachers College, Columbia University.

This report traces the development of the training of teachers in schools of collegiate grade from its beginning less than twenty years ago to the present time, when no less than twenty-five colleges offer courses intended to train prospective teachers of mathematics, and fourteen universities are enumerated which have organized schools for the professional training of teachers. Even this formidable list does not mention all that might have been included.

In spite of the phenomenal development of these schools, the movement seems to retain that surest of all signs of a healthy growth, a good appetite. The ideal preparation for teachers in secondary schools, which it is stated will undoubtedly be demanded in time, comprises on the side of pure mathematics the calculus, differential equations, projective geometry, theory of functions, theory of curves and surfaces, theory of numbers, group theory, and various other topics. And to this should be added courses on surveying and general applications of mathematics, that the student may see to what all of the above work is leading.

In the sub-report on Training in normal schools, it is in-

teresting to observe that of the normal schools from which answers to a questionnaire were received, all but twelve per cent. were attempting, more or less systematically, some correlation between the various topics of school mathematics.

On the whole, the report is a most optimistic one for the future of mathematical instruction.

The report of Committee X, under the chairmanship of Professor Henry S. White of Vassar College, deals with Undergraduate Work in Mathematics in Colleges of Liberal Arts and Sciences. In men's colleges it is stated that mathematics appears to be losing none of the importance which has been accorded it since colleges were first established. But the preparation for college work is reported as lamentably weak, especially in algebra. It is suggested that it may well be that the preparatory school teacher, in a desire to find entertainment for the student, is employing so much of his time in useless problems as to make thoro drill in fundamental operations impossible.

Suggestive sections on the organization of the departments of mathematics, classroom method, and the like make the report a most helpful and stimulating contribution to the literature of mathematical teaching.

H. E. Hawkes

Columbia University

French lessons and **German lessons**—By Max Walter, Director of the Musterschule, Frankfort-on-Main. New York: Charles Scribner's Sons. 75c. and 85c., respectively.

These two volumes bring us again face to face with the problem of modern language teaching. The controversy between the "classical" and the "reform" or "direct" methods was started in the sixties, when Professor Boyesen introduced his "natural method" in New Haven, and it has been going on ever since without either side scoring a decisive victory: "*Grammatici certant et adhuc sub judice lis est.*"

Coming from such a man as Dr. Walter, the two books, *French lessons* and *German lessons,* could not but be excellent, provided his pedagogical theories be accepted.

The lessons gradually lead the pupils from the known to

the unknown, introducing them to the surrounding objects and pictures prepared *ad hoc*. They teach them first to understand the foreign language and then to express themselves in it.

The "Reform-method" of the eminent German scholar is far superior to the other systems supported by his predecessors:

I. He uses phonetical symbols.

II. He has recourse to the pupils' own vernacular to ascertain whether his instruction is understood or not.

III. He teaches grammar along with the spoken language.

These three potent factors for progress were either unknown to or ignored by those who came before him.

Now, it might not be amiss to consider Dr. Walter's lessons from the standpoint of American schools. Are they suitable to the majority of our high schools? For the "Reform-method" to be successful, three conditions seem to be imperative:

I. Small classes.

II. Instructors having a thoro knowledge of phonetics and a faultless pronunciation.

III. Instructors having an absolute command of the language they teach.

In Germany and France, where the new method is mostly used, classes are much smaller than in America. In the French "lycées" they are limited to twenty-five pupils, while in our country the average high school class in large cities numbers at least forty, when it does not reach fifty and even fifty-five students. Under these circumstances the pupils may perhaps be taught to *understand* but never to speak, as no opportunity of doing so can be afforded them. It may be argued that the training of the ear and eye is *not an attainment* to be despised. Perhaps so; but then much time is being spent which could be more profitably used toward acquiring a reading and writing knowledge of the foreign languages. And again, how many of our girls and boys really wish to speak French or German?

As to phonetics. The teaching of that science is far from general in our educational institutions preparing men and women for secondary school work. Indeed, there are very few colleges where that branch of instruction is given serious consideration. This omission in our college curriculums would *ipso facto* impair the ability of their graduates to use in their classes Dr. Walter's methods. Moreover, altho there is no gainsaying that phonetics are a potent adjunct in imparting a good pronunciation, it is to be feared that all of our high school instructors do not pronounce French and German with perfect accuracy. Thus the uselessness of phonetical charts becomes at once obvious, as the pupils will connect a wrong sound with a correct symbol.

In his lessons Dr. Walter uses no book; his remarkable ability needs no such help. To teach according to his methods the instructor must be ready to avail himself of the objects surrounding him. A fallen book, a closed door, a hat, a pen, a picture are his tools, and as Dr. Sachs says in his Introduction to the *German lessons,* "Even those who are not modern language teachers can not but be imprest by the resourcefulness of the teacher [Dr. Walter], the vivacity and versatility of the class exercises, the intelligent use of every legitimate teaching device to secure definite attainment;" and the editor of the *French lessons* adds, referring to Dr. Walter's teaching in America, that, "it was an ideal exhibition of skill." To this it may be answered that we now have Dr. Walter's lessons in book form; but as Dr. Sachs says again, "the magnetism of an unusual personality can not be conveyed by the printed page."

Unfortunately all teachers are not so brilliantly gifted as the German scholar, and it is to be feared that many of them would find themselves at a loss if they had to use exclusively the oral method, even with the aid of such excellent books as Dr. Walter's.

To conclude, a word ought to be said about the usefulness of the books for college entrance examinations. Our higher institutions of learning (fortunately or unfortunately; the question is open to discussion) do not require for admission

a speaking knowledge of the language in which they give examinations. On the other hand, they demand a fair knowledge of grammar and a moderate ability in translating English into the foreign tongue. Can these be acquired, by the oral method, in a preparation that, in most cases, does not exceed two years? This question can hardly be answered in the affirmative.

Yet, in spite of all that has been said before, if the three conditions above stated were obtainable, there would probably be no good reason militating against the adoption of the "Reform-method" in schools where the practical rather than the cultural side of modern languages is emphasized.

C. FONTAINE

COLUMBIA UNIVERSITY

The individualization of punishment—By RAYMOND SALEILLES, Professor of Comparative Law at the University of Paris. Translated from the Second French Edition by Mrs. RACHEL SZOLD JASTROW, of Madison, Wis. Boston: Little, Brown & Co., 1911. xliv + 322 p. $4.50 net.

The fourth volume in the Modern Criminal Science Series, comprizing works by eminent European authorities, translated and published under the auspices of The American Institute of Criminal Law and Criminology.

Professor Saleilles is one of the most brilliant jurists in France. In this book he has written what may be acknowledged to be the clearest and most satisfactory statement of the recent development in theory and practise of punishment of criminals. It is only about fifty years since this matter has received adequate treatment in thought and literature. What has been done in those years, the defects and virtues of it, what difficult problems remain to be solved, are here adequately set forth.

The movement of thought has been from the old, what is called classical view, of punishment, in which crimes are objectively treated as each so much violation of law, involving in each case just so much penalty, to the estimation of the subjective criminality of each man, to which criminality, and not to his crime, punishment has to be adjusted. In this latter case, in its extreme form, punishment *as such* may cease to exist, and become means of prevention and cure. Crime is

to be treated after the analogy of insanity. Criminals are to be classified as curables and incurables. Prisons become, on the one hand, if not quite hospitals, yet places for discipline, for training out of old into new modes of thought, emotion, and behavior. On the other hand, penitentiaries become, if not asylums, yet houses of detention for incurables, who are so either from native or acquired unchangeable structure of mind and body. The length of time in which one of the curable class is to be subjected to discipline is to be determined, not by the enormity of his objective crime, but by the character of his subjective criminality. We have, then, what shocks our traditional sense of justice, unequal penalties, if they may be called so, for equal crimes.

Such is the extreme view of the Italian school of criminologists, that of Lombroso, Morselli, and Ferri. Its theory, with its acceptance of the doctrine of non-responsibility, is ably criticized in the book. But if this extreme view is to be rejected, the general view that crime and punishment for crime are to be individualized, is shown to be not only the growing practise, but the more rational theory, whatever be its difficulties. These difficulties, whether they be legal, judicial, or administrative, and they are great, are not ignored, but courageously faced. It is shown that law can do no more than give the judge the power of indeterminate sentence, that the judge, owing to his limited knowledge of the criminal, can go but a little further, and that the real individualization must rest with the administration of the punishment.

Here comes in the great difficulty, that of the supply of trained prison officials, experts and of a real missionary spirit, who go not to some "India's coral strand" with banners waving and churches praying for them and sending them boxes, but go, if not "to preach to the spirits in prison," yet go by skilled methods of discipline to redeem their lives from destruction.

In our Teachers Colleges we may yet add to the training of school superintendents and teachers, also the training of prison wardens and their assistants. Thus the learned professions grow. As necessary as the trained physician for the

cure and prevention of disease is the trained jailor for the cure and prevention of crime. It will at last come to be as absurd to appoint political henchmen to the governance of our jails as it now is to have barbers as surgeons.

HERBERT G. LORD

COLUMBIA UNIVERSITY

The oriental religions in Roman paganism—By FRANZ CUMONT. Chicago: The Open Court Publishing Co., 1911. xxv+298 p. $2.00.

Years ago, when the present writer was still in college, it was his good fortune to read Professor A. V. G. Allen's book on *The continuity of Christian thought.* It opened to him a new heaven and a new earth. For he found there, traced with fine scholarship from Clement of Alexandria to Schleiermacher, the great conception of the immanence of Deity, and the necessary corollaries of this conception in the history of the redemption of humanity. God had spoken thru Moses and the prophets; He had spoken also, it seemed, thru the Greek philosophers. In fact, there never had been a time since the world began when He had not continuously revealed Himself to mankind thru the reason, the course of history, the discipline of life. A like enlargement of vision will surely come to many a reader of these lectures of the distinguished Belgian professor, Franz Cumont, one of the ablest, most sympathetic, and best equipped of the investigators of today in the field of ancient religious thought. In the last twenty-five years the world has traveled still farther along the road described by Professor Allen. The researches of Gruppe, Farnell, Wissowa, Réville, Rohde, Lafaye, Frazer, and M. Cumont himself—not to mention a number of other notable scholars—have greatly increased both our knowledge of the facts of ancient belief and our understanding of their significance for the universal religious consciousness. Perhaps we are not yet prepared to accept Grant Allen's view, that "the world has never really had more than one religion, 'of many names, a single central shape.'" But in the face of the multitudinous facts so patiently collected and verified, so scientifically correlated and interpreted, we can hardly fail to

agree with Cheyne, when he says in his *Bible problems:* "The Christian religion is a synthesis, and only those who have dim eyes can assert that the intellectual empires of Babylonia and Persia have fallen." If, then, it be asked, "what of the unique position claimed for Christianity?", the answer must be, as Emil Aust expresses it in *Die Religion der Römer,* that paganism fell because the less perfect must yield to the more perfect, not because it was sunken in sin and vice. Thus viewed, the spiritual greatness of Christianity is rather enhanced than diminished. For its antagonist was well worthy of its steel.

It is not, however, with this struggle that M. Cumont's present volume is primarily concerned. He has investigated rather the internal development of paganism in the Roman world, and the transformation wrought in it by the introduction, diffusion, and final synthesis of the cults and religious ideas of the Orient. The organization of the empire was highly favorable to this diffusion, and, in an age when worship had become rather the expression of a personal belief than a civic duty, these Oriental mysteries made a far stronger appeal alike to the senses, the intelligence, and the conscience than the old Greco-Roman religion. M. Cumont discusses at some length the reasons for this, and then, in the four chapters which are devoted, respectively, to Asia Minor, Egypt, Syria, and Persia, presents with admirable lucidity the peculiar power of each of the great cults. One is struck by the marked tendency in the course of their development to emphasize inner purity of soul, and, particularly among the worshipers of Mithra, the active practise of the virtues. A chapter is devoted to the part played by astrology and magic, and, finally, the author sums up the way in which, under the influences that have been described, the old faith of Rome was so transformed as "to offer to all men a world-conception which gave rise to a rule of conduct, and placed the end of existence in the future life."

The contents of this fascinating volume were first given to the world in the form of lectures delivered before the Collège de France and at Oxford. When, in 1906, they were pub-

lished, M. Cumont added some seventy-five pages of bibliography and notes for scholars who might be desirous of verifying statements made in the text. The present translation, which is well done, is based upon the second edition (1909) of the French original.

NELSON G. MCCREA

COLUMBIA UNIVERSITY

The educational system of China as recently reconstructed—By HARRY EDWIN KING, vice-president of the Peking University. Bulletin, 1911, No. 15, United States Bureau of Education. Washington: Government Printing Office, 1911. 105 p.

From the point of view of the Chinese, many of the books on China and her institutions from the pen of Western writers often appear to have the characteristic of being more or less superficial, due probably to the fact that the author either lacks first-hand knowledge or attempts to cover a variety of subjects within a limited space. The publication under review, however, is not to be classified among the books of this kind. An examination of its contents convinced us that the author, in preparing this monograph, has made one of the most valuable contributions to the literature on China, and particularly to that portion relating to education. The present study does not enter into discussion of the old system of education, nor does it attempt to treat the educational work done in the institutions of learning supported by foreign missionary boards. It is an attempt, in the first place, to trace the growth of the first national educational institutions and the struggle over the introduction of modern education into China before the formation of the ministry of education, and, secondly, to describe the present educational system as outlined by the ministry of education. To be more specific, the first part of the study deals with the development of new education in China in three periods, first, the growth up to 1898; second, 1898-1900, and third, 1900-1906. The first period marks the beginning of modern education in China; the second, the period of reforms and counter reforms; and the third, the period within which occurred the abolishment of the old examination system, the creation of the ministry of education, and the establishment of

the entire educational system in China. The second half of the monograph is devoted to a description of the controlling agencies of the new educational system and the various grades of educational institutions from the kindergarten up to the university. Due space is given to the Chinese students studying abroad.

One of the merits of the contribution is the combined quality of comprehensiveness and thoroness, the two qualities which rarely go together. Indeed, so far as the reviewer's knowledge goes, this thoro and comprehensive treatise on the new education in China is the first one of its kind that has appeared in print during recent years. The bibliography of educational documents and periodicals on Chinese education which attaches to the study is also of value, for it serves as a guide to those who wish to study the subject first-handed. Perhaps the chief merit of the study is found in the fact that Dr. King obtained much of his data from original sources. Not only did he receive his information from Chinese documents of official character which are highly reliable, but he also derived much material from his personal observation during his long residence in China. We therefore heartily recommend this bulletin to those who are in any way interested in the educational work in China.

It might be pointed out here that since the preparation of the monograph the Board of Education in Peking has published three statistical reports of much value, giving figures which are more significant and telling than those given in this study. These reports, of course, were not yet available at the time this monograph was prepared. The present study, therefore, is quite up to date concerning the period which it covers.

P. W. Kuo

Teachers College,
Columbia University

A type of book that has unfortunately gone out of fashion, but that might well be restored to the place it once occupied, is a *Study of words,* by E. M. Blackburn. If students in

high schools would spend some time in really studying a book like this, they might gain new power in the use of the English language. (New York: Longmans, Green & Co., 1911. 224 p. $1.25.)

The President of Colgate University, Dr. E. B. Bryan, has written an attractive series of chapters on character building, which he calls *Fundamental facts for the teacher.* (New York: Silver, Burdett & Co., 1912. 111 p. $1.00.)

The newest number in the Riverside Educational Monographs is entitled *The high school teaching of mathematics,* by George W. Evans. (Boston: Houghton Mifflin Company, 1912. 94 p. 35c.)

The significance of existence is the title of a stout volume on fundamental ethical insights and principles. It gains in interest, because of its application of these principles to present-day problems. The author is Dr. Harris of Liverpool. (New York: Longmans, Green & Co., 1912. 325 p. 6s.)

It would be difficult to find a more readable and informing book of its kind than *Scientific features of modern medicine,* by Professor Frederic S. Lee of Columbia University. Here the general reader will find set forth in simple language, but with scientific precision, those aspects of modern medicine which properly excite such general interest, and about which all intelligent citizens should wish to be well informed. (New York: Columbia University Press, 1911. 181 p. $1.50.)

An eminently readable book, altho one which deals with a subtle theological and philosophical conception, is *Authority,* by A. C. P. Huizinga. Boston: Sherman, French & Co., 1912. 270 p. $2.25.)

IX

NOTES AND NEWS

Dr. Kerschensteiner on American schools

Dr. Georg Kerschensteiner of Munich, the author of *Education for citizenship,* who was recently in this country, contributes to the January and February numbers of the *Süddeutsche Monatshefte* two articles, altogether notable alike for their perspective and their perspicacity, on the "Volkschule der Vereinigten Staaten von Amerika," which deserve much more than passing attention, as showing how one phase of our educational system strikes an intelligent foreign observer. Dr. Kerschensteiner's observations during two months in the United States geographically begin in New York and end in Boston, by the way of Philadelphia, Pittsburg, Cincinnati, St. Louis, and Chicago, with a number of minor places in between. The conditions, accordingly, which he views with his own eyes are those of the East and the Middle West, and not those of the remoter West and the South. The poles of efficiency he finds in Pittsburg, where there are, as it seems to his simple German mind, almost unbelievable conditions of incompetency and official mismanagement, and St. Louis, where he found, to use his own words, such well-ordered conditions of school administration that they appeared to him fairly enviable, as they must also appear, he says, to all those who have at heart the problem of popular education.

Dr. Kerschensteiner's articles embody the observations of the experienced *Fachmann* who understands the meaning of what he sees in a new environment and knows how to evaluate it against the background of his own home conditions. It is interesting, accordingly, under these circumstances, to observe what particularly attracts his attention in our public schools as different and worthy of comment for the benefit of his German audience. His criticisms, too, are valuable not only

as containing a view wholly objective, but one taken besides from the fundamental standpoint of the country whose educational system we are inclined to think superior to ours in organization and efficiency.

The American public school system, he states, is just as little an organic unity as is the Union itself, and there is no national centralization of the system of popular education. In the cities and in the states alike the development of the school system is much more the matter of the people, the citizens of the state or of the community, than is the case in Germany, where the school in great part is ordered by the government and the people accept, with greater or less equanimity, what the government prescribes. This is, he thinks, the great blessing of the American schools, but also their curse. Each city and each state has the kind of school that best fits into the general cultural condition of the population. Where this, for any reason, is low, then the school system is poor and sometimes miserable. Where it is high, the school system itself is on a high plane of development and educational effectiveness. He contrasts this with conditions in Germany, where a public school in Munich, or Augsburg, or elsewhere, has essentially and, aside from minor details, precisely the same organization, with the result of general homogeneity and unity in the whole problem. A necessary concomitant of this attitude toward the school on the part of the community, and a bright side, he thinks, of the American system, is the active interest that is taken by the people themselves in matters of education, and the impossibility, on that account, of a permanent deterioration in the schools. Over the altogether deplorable conditions in Pittsburg, he tells us, a storm has arisen that will clear the air, as it has already been cleared in other cities of the Union that have gone thru this very process of wresting the school system out of the grasp of political corruption. Almost everywhere thruout the country conditions in the public schools have been slowly but surely improved. In St. Louis, however, the writer finds a state of affairs at the present time that makes its active appeal to him, and particularly, as he states, in three respects, viz., the direct

election of members of the board of education by popular vote; the strict precautions that are taken to preclude the presence of material or other interests that may influence the choice of this board; and finally the immediate control by the board of its own budget. The effect of these three factors is to constitute a board of school management whose members are ready and willing to devote their time, their judgment, and their means to the best interests of public education.

A characteristic of public school conditions in the United States that attracts the writer's attention is the great variation in the age of pupils in the same grade, due in the large cities, in particular, to the large foreign element in the population. In Germany, he says, it is scarcely possible to form a correct conception of the age complex of the school material in the public schools of the American cities. This complicated situation, however, to his mind, is successfully met and its difficulties in general are overcome. A matter of which he approves is the breaking up by a noon intermission of the daily session, a condition that is unknown in Germany, where the school period is continuous and ends for the day at one o'clock. A further condition that commends itself to him is the fact that one-half of the teaching time in the American school is devoted to direct instruction by the teacher. Every class, he notices, in the schools of the large cities is divided into divisions, in most cases on the basis of quality, one such division receiving direct instruction while the other is engaged in preparatory study. He even found it possible, he states, in certain schools for pupils to be advanced beyond their grade in single subjects. A pupil, he says, may be in the sixth grade in reading and writing and in the fourth in arithmetic, an arrangement which he considers an improvement upon German conditions, where such a thing is unknown. Technical instruction he finds in the hands of special teachers, and much more extended in its range of subjects than in Germany. In the instruction in English, geography, and history, what particularly pleases him is the possession by the schools of adequate school libraries and the abundant supply of history and geography books and excellent reading matter, which tend to

promote an acquaintance with good literature to a far greater extent than is possible in Germany with its "poor reading books and its miserable school libraries." In arithmetic and geometry the scope of instruction far exceeds that in most German public schools and is well carried out. In drawing and the natural sciences the ground covered is about the same as in the German schools, but false methods in drawing and insufficient equipment in natural history prevail without exception in all the cities visited and produce unsatisfactory results.

All of these conditions are of course perfectly familiar to us, and the author's remarks upon them are perhaps only interesting and of value as they show how our methods strike the foreign critic. The fundamental aim of the public schools in America, he concludes, with approval, is to educate the future citizens of the nation. At the end of his visit, to quote his own words, he left this country "with the conviction that no nation of the earth makes greater sacrifices for its public school system, nor relies more firmly on the strength of this factor than do the people of the United States." "We Germans," he continues, "may assert with pride that we have given to the world the public school. We may still claim that no nation has organized so uniformly and strictly its system of public education. But we dare no longer stride about in the toga of a *præceptor mundi*. Even if the flood of immigration, which casts up on the shores of the new world its hundreds of thousands of the most poverty-stricken of the people of Europe, continually reduces the average educational condition of the masses, and in many places political corruption, like a hot sirocco, withers the blossom and creates conditions in the schools worse than we can readily conceive, there are still in other states and cities of the young nation school organizations and educational results at hand that are to be compared with the best of the earth, and from which we Germans can learn quite as much as once the Americans learned from us." Much of this is somewhat rose-colored, but as a reflection from its particular source it is interesting, none the less.

To the Editor of the EDUCATIONAL REVIEW:

Can Such Things Be?

The well planned intrigue to turn the National Education Association into an endowed trades-union moves steadily and prosperously toward successful completion. Please notice that the Board of Directors in formal meeting at San Francisco exprest their strong preference to have the next meeting of the Association held at St. Paul, and then, in the usual way, referred the matter to the Executive Committee with power. Never has the Executive Committee under such circumstances arranged to hold an annual meeting at a point other than that preferred by the Directors, except for reasons of great weight which have been submitted to the Directors and concurred in by them. The announcement made under date of March 15, that the next annual meeting of the Association will be held in this city, is no matter of mere chance. The fact that no special railway rates can be obtained for St. Paul is no argument against holding the meeting there, since under present conditions no special rates can be obtained for a meeting at any point. Certain Directors were consulted by the President of the Association as to what ought to be done, but no formal poll of the Directors was had and no deference has been paid to their opinions. The meeting is to be held in this city partly to aid the cause of a candidate for election to the superintendency of schools here, and partly to enable our local teachers' trades-union to strengthen its grip upon the Association without incurring traveling expenses and without indulging in the practises that discredited the recent meetings at Boston and at San Francisco. The program is to elect to the presidency of the Association for next year a well-known walking delegate of the female sex of the New York teachers' trades-union, and to hold the meeting of 1913 in New York City. The next step as planned is to displace Secretary Shepard at the New York meeting by the chief organizer of the Chicago teachers' trades-union. When this is done, the job will be complete. The National Education Association, however, as most of us have known and honored it, will be as dead as a door nail.

A LOOKER-ON IN BABYLON

CHICAGO, ILL., March 22, 1912

EDUCATIONAL REVIEW

MAY, 1912

I

ADMINISTRATIVE PROBLEMS OF THE HISTORIC COLLEGE

A group of colleges has continued for a century or more to occupy a unique place in the educational life of the country. Schools of equal grade, some of them more specialized, others of wider scope, have meanwhile arisen, but these colleges have not been supplanted. From time to time, almost periodically, the question is discust: Has not the college of the original type become superfluous under the expansion and specialization of the educational system? Sometimes the discussion is followed by an attempt to classify it out of the system. But discussion and experiment pass by and the colleges persist. Even when any of the colleges in question become universities the college idea persists. The college still remains at the heart, or better still continues to be the heart of the university, something quite different from the department of arts, or of science, in the state universities, or in any of the newer forms of university development.

This persistence of the historic college does not indicate that it exists by virtue of any freedom from perplexing and even dangerous problems. The administration of the historic college is beset with difficulties of its own kind, and for which no settlement can be offered as a finality. These reappear under new conditions and often with a new emphasis. The commingling of the past with the present, which gives on

the one hand distinction, guidance, and inspiration, creates on the other hand embarrassments, and at times hindrances, that are not easily overcome. There are the inevitable accretions of time, which distinguish the old from the new, to be disposed of, as well as historic values to be guarded, and ancestral virtues to be cherished. Whenever a new institution of abundant means, and having free scope, is somewhat jauntily set up as an object lesson in the higher education, one is reminded of the saying of the old Scotch dominie to his younger and care-free brother: "When your lum (chimney) has reeked as long as ours has it will have as much soot."

The underlying question in the administration of the historic college, seldom in evidence, but always present and sometimes urgent, is the question how to keep the spirit which made the college and gave it a history, and at the same time to keep the college open, if necessary, to throw it open, to the free and bracing atmosphere of modern education. The historic college, under narrow guidance, will come to stand simply for provincialism. It will soon isolate itself from all educational advantage and influence. The historic college under indifferent guidance, essentially lacking in the spirit of veneration, will quickly detach itself from its past and be but one of many things which are new. To keep the spirit of a college is much more than to keep its traditions. These are not always vital. An administrator must be an interpreter. He must know what to reject as well as what to conserve. The historic college may be overweighted for keeping step in the educational march. Nothing but the spirit which is capable of asserting itself in terms of freedom and progress can keep it in a place of leadership.

I have said that this underlying question is seldom in evidence, but that it is always present and at times urgent. In fact it is continually creating problems, problems which thus become distinctive of the historic college. Most of the problems of educational administration, all in fact which are technically educational, and many of those which are executive in character, belong alike, differing alone in degree and urgency, to all institutions of the higher education. Separate and spe-

cial problems grow out of the history, or scope, or type of a given institution or group of institutions. The present discussion does not reach beyond the group which has been indicated, and even here much that may be said may not apply with equal force to all within the group.

First in importance and in difficulty under present conditions is the problem of government. The charters of the historic colleges are, for the most part, singularly broad and free. They are all charged with the spirit of loyalty to Church and State, but they did not put the colleges under the direct control of either. They established for their government the close corporation. The close corporation was intended to be, and became under the test decision of the Supreme Court, the guarantee of educational freedom. Neither Church nor State could break into the corporation. It could be opened only from within. That possibility has now been utilized in the interest of still greater efficiency. The opening of these college corporations to alumni representation has virtually put the colleges under alumni government. When the alumni representation is not numerically strong it is usually influential, and always by implication at least suggestive of authority in reserve.

Alumni government comes into its responsibility at a time when the functions of government are coming to be more extended and more exacting. In the matter of finance, for example, it is no longer sufficient to administer funds, the greater and more pressing duty is to provide funds. And for this increasing duty of providing funds there is need of a very definite, consistent, and appropriate policy—something more nearly in consonance with the end in view than the indiscriminate solicitation of endowments, or the revivalistic methods of raising money in emergencies. The financial asset of the historic college lies in the indebtedness of its alumni, greatly enhanced by the new sense of responsibility. Alumni government means alumni support. Representation calls for taxation as logically as taxation for representation. The principle is gaining acceptance. All that is needed to make it effective, perhaps adequately effective, is organization. Ap-

proaches to this principle may be seen in the assumption for five years of the expense of the preceptorial system by a body of Princeton alumni; in the annual gift for the past five years of $100,000 by each graduating class of Harvard on its twenty-fifth anniversary; and especially in the system in operation at Yale for the past twenty-one years, tho supported as yet by a minority only, thru which $554,742.00 have been added to the permanent fund, and $381,763.00 contributed in addition for current uses, as in the appropriation by the alumni committee of $50,000 a year for the past two years for the increase of salaries. When the historic colleges under alumni government really take up the task of providing sufficient funds in the most consistent and appropriate way the financial problem will have been greatly simplified, and it may be added, dignified. There is really no reason why the historic colleges, with their reserves of alumni, should come into financial competition with such of the new institutions as are entering on the struggle for existence.

If it is a difficult function of government to provide funds, it is a much more delicate function to provide a competent teaching force. Whatever power may be delegated to faculties as bodies of educational experts, the creation of a faculty and its subsequent enlargements or the replenishment of its numbers belong among those powers which are most wisely retained by the governing board. The experiment of entrusting to faculties appointments, or nominations which are considered the full equivalent to appointments, has not past into general usage. On the other hand, arbitrariness in the use of the appointing power has always been disastrous. The actual exercise of this power is a continuous process involving much consultation, and in the case of appointments to subordinate positions presupposing the training of men for future service by the departments themselves. Promotion may or may not follow a system. I am inclined to agree with Dr. Eliot in saying that "the presumption is strongly in favor of automatic advances, because on the whole they give greater satisfaction to the academic staff, and offer a contractual inducement to the university service, which a prospect of dis-

cretionary advances can never equal."[1] The discretionary power, however, must be exercised in some form at nearly every stage, and in the appointment of new men on the highest grades it must be practically absolute. This power is of necessity entrusted largely to the president, as at once the assumed representative of the faculty and the authorized agent of the trustees. Nothing reflects so clearly the wisdom, fairness, and academic intelligence of the president of a college as the appointments made during his administration. The personnel of a faculty is the most critical test of his fitness or unfitness for his position.

The difficulty of supplying an adequate and competent teaching force is very great, and perhaps increasing. Certainly it is the most common and most serious of all the perplexities of college administration. The difficulty of the older colleges in this regard is intensified by their lack of productive power to supply in any fit proportion their own demand for teachers. In consequence, the search for teachers has to be made far and wide, with the result of much experimenting at the expense of students. Variety as well as breadth in the training for faculty positions is to be desired. It is far better that a faculty should be cosmopolitan than that it should be provincial. Under present conditions, owing to the lack of productiveness to which reference has been made, there is no danger of provincialism in the older colleges. Their danger lies in sterility at the point where greater fruitfulness would be a cheering sign of academic health. Virility in other directions, which is by contrast very marked, is not a sufficient compensation for any enfeeblement here. A college has the right to claim the return of a considerable per cent. of its most virile product into its own life. To produce scholars who can not in turn communicate and stimulate scholarship is not a sufficient result for self-development or even for self-defense. Increase of fellowships and advance in salaries may aid in meeting the difficulty, but the problem is deeper than the reach of money. The margin of difference between any possible salary and the income of a successful

[1] Educational Review, December, 1911.

business man is too wide to be covered, and any one who is estimating the difference in his own case never thinks of himself in any other light than that of a successful business man. I suspect that modern scholarship, except in the rare enjoyments of research, has not yet found the personal equivalents for those satisfactions which characterized the older type. The competitions of the modern scholar are not altogether with men of his own kind, but more and more with men of the street. Modern scholarship must have all the advantages of freedom, the modern scholar must live in the open as a man among men, but with him, as with all who magnify their calling, the ceaseless attraction must come from the calling itself—from its intellectual possibilities, from the loyalties which it creates, and from the devotion which it demands. Possibly we have today within the range of medical science the best ethical type of the modern scholar.

A second problem which soon or late each of the historic colleges must face for itself concerns what may be termed its scope. As was suggested at the outset, some of these colleges have already decided to become universities. Unquestionably this was in each case a wise decision, and yet even here there has been wide difference in outcome, as, for example, between Columbia and Princeton. In all cases, the colleges which have expanded into universities have kept their individuality. If the problem before those which remain as colleges does not develop in like manner, that is, toward the university, it by no means follows that the general problem of development is at rest. Occasions will continually arise calling for redefinitions of aim and range of work. Readjustment at some determining point must be made, usually involving restriction or enlargement.

Two questions of general policy, affecting some at least of the older colleges, are just now under public discussion. These questions are closely related, but they do not necessarily come under practical consideration at the same time or in the same circumstances—first, shall the classics and the sciences be given places of equality in the college curriculum; second, to what extent shall college training be vocational.

The first question is clear, and of significance, if the emphasis be put upon the word equality. The second question, for lack of any possible exact definition, is quite likely to lead into a battle of words.

As a matter of academic expediency in the administration of any given college, the question whether the preference shall be given to the classics or to the sciences, or whether these shall be put, so far as possible, on an equality, is altogether its own, but as an educational question it challenges discussion. Personally I can not see how the older colleges can maintain their relative place in education without striving for as great equality between the two as can be effected. In the interest of the classics I should dislike to see their withdrawal from the open field into any kind of favored seclusion; or, what is the same in effect, the reduction of the sciences to a subordinate place in the curriculum. The present disadvantage to the classics lies in the disproportionate amount of elementary scientific instruction which has to be given in the colleges, especially to those who are supposed to bring a scientific training for entrance. The classics have little or nothing to fear in the way of competition from advanced instruction in the sciences. If the colleges could demand four years of preparation in a science, as they demand four years in Latin, the electives in the sciences would show more nearly the same diminishing result as in the classics. The burden of numbers goes with the new and especially elementary subject. It is singular how fast the "practical" subjects cease to be practical in the eyes of students when they become difficult. Even the social and economic subjects could hardly bear the test of time required for proficiency in Latin or Greek. It seems to me that the contention with the sciences is at the wrong end, not when they come into the grip of practicability, but when they are easy and diverting because they are to such an extent elementary.

To the broad question, whether the colleges which stand traditionally for a liberal education can afford to treat the great disciplines involved in the classics and in the sciences on any other terms than those of the greatest possible equality, I

think that there can be but one consistent answer. Educational consistency goes with a principle, not with a tradition or a habit. The principle of a liberal education is freedom and expansion of mind, the open habit of mind, as opposed to the contraction or straitening which is supposed to attend the discipline of utility. I do not see how the liberal mind can be developed today without making provision for the free and equal cooperation of the sciences. Of course no college intends to set these aside. That goes without saying. The test which determines the real scope of a college is the test of equality in the educational values assigned to the classics and the sciences, and is most clearly exprest by the adoption or retention of the B.S. degree, or by the absorption on equal terms of the discipline for which it stands into the A.B. degree.

The answer to the related question regarding vocational training in the colleges must be indefinite and indecisive, the question is so slippery. I know of no distinction which will hold unless it be the distinction between training toward a vocation and training in the vocation. There is really no such thing, except in individual cases, as college training regardless of vocation. Most of the older colleges had their origin in the training toward and, to a considerable extent, in the vocation of the ministry. That was their avowed object. Subsequent training has been adjusted to each new calling which has gained professional or academic standing. Professional standing has been gained thru academic standing. Some kinds of business are entering on the road to professional standing along which the professions of the ministry, law, medicine, teaching, and engineering have led the way. Shall the colleges break with their traditions and disconnect themselves from the movement as it widens in scope? Whether the individual student should have his vocation in mind thru his college course, or delay his decision as long as possible, must depend largely upon the student himself—upon his temperament or circumstances. On the abstract question most of us would probably advise delay, and to this end would arrange the curriculum to encourage breadth of training at the cost of time. But unless the student himself persistently chooses

subjects away from his probable vocation, the college is helpless. The majority of subjects make connection of their own accord with the different vocations. In a very definite sense a considerable part of the necessary subject-matter of a college curriculum, constructed on the most restricted plan, is vocational, that is, it can be so used—chemistry and biology, economics and political science, mathematics and physics, and the languages so far as they are related to teaching. The attempt to make these subjects unvocational in their tendency means simply the determination to make them more elementary, to forbid their development to the point where they will be of use in order to insure protection from harm. Evidently it is easy to run into absurdities in too great eagerness to avoid the danger of practicality. What is really meant by the present opposition to vocationalism is the desire to maintain the academic spirit against the insidious encroachment of the commercial spirit. That is a clear and laudable desire, a desire worth striving to fulfil by all legitimate and appropriate ways. I doubt if the academic spirit is fostered by restricting the natural scope of a college. We can not draw the dividing line between the academic and the professional or technical so far within, or make it so hard and fast, that the commercial spirit will not get at work behind it unless there is a counter-spirit at work within to drive it back. The fight against commercialism is a moral fight, and the more clearly we recognize this fact the better shall we be able to choose our ground and weapons.

A third problem of the older colleges has to do with the maintenance of their constituencies. The constituency of an historic college, as represented at any given time by its students, is made up from three sources—those drawn from the locality, those who come to it thru inheritance, the sons of alumni, or from families identified with the college, and those who are attracted by the college idea, or by some peculiar quality in the college itself. Of these sources of supply, the second, tho relatively small, is the most constant. So far as the first source, that of the locality, is concerned, colleges vary greatly, and in general it may be said that this source

is growing more variable, owing to the lessening hold which any college has upon a specific territory. The source of supply which creates the problem of a constituency is that represented by the attraction of the college idea. The problem of a constituency is not that of numbers. The size of a constituency, provided it be sufficient to maintain the various functions of a college, and to allow healthy increase, is not material. The problem is to maintain a constituency which shall be homogeneous and at the same time free from tendencies to provincialism. Whatever numbers may be drawn from local or family sources, no college can afford to rely altogether for its constituency upon local necessity or upon family pride. The limitation of the community or the narrowness of the set will be perpetuated. The influence of student upon student, the reaction of the student body upon the individual, is a very great factor in college education: and this influence, other things being equal, is of advantage according to the diversity of locality and social interests represented.

The historic colleges were in their early days national institutions. Up to the time of the Civil War southern students came to them, as western students now come. These colleges have been able to maintain themselves in their original breadth, and in the diversity of their constituency, under the spread of the higher education thruout the country, and especially under the growth of state universities, thru the growing appreciation of the college as having a necessary place and value in the educational system. I know of no other sufficient explanation for the annual movement of hundreds of undergraduate students from the West to the East. The movement has not been arrested by the increase of educational facilities of the highest grade thruout the Middle West. It is difficult to see how anything can be gained educationally by the transfer except as emphasis is placed upon the kind of undergraduate education sought for. Social considerations may have some influence. The fact that the eastern colleges are, in general, non-co-educational may be an attraction. The mere fact of age may lend a certain charm to an institution even in the

eyes of those who are unfamiliar with its history. But none of these incidents explains the movement, for a like undergraduate movement is going on all the while from the natural constituencies of the eastern universities to the same colleges, from which students return in due time to take their place in the universities as graduate students. Manifestly the problem of the constituency of the historic colleges is simple and well defined, involving chiefly the maintenance of those educational characteristics which give distinctness, if not distinction, to the college idea.

The fourth and most vital problem before the older colleges grows out of the nature of the instruction which they require, characterized especially by the unusual amount of moral stimulus required. The proportion is quite different from that called for by colleges in the newer communities, where the moral struggle to enter college equals the necessary mental preparation. Social conditions in the older communities are bringing about a decline in the moral maturity of those entering the colleges, which just about keeps pace with the advance in the mental preparation required and secured. By moral maturity I mean motive power, power of will, self-determination. We are indebted to President Lowell for the most enlightening remark which has been made about this phase of the present situation in our colleges. "College work may affect the fortunes of a lifetime more profoundly than the studies of boyhood or of the professional school, but the ordinary student does not know it."[2] This moral ignorance on the part of the *ordinary student* constitutes at present one evident condition under which college teaching must be carried on. The condition may be defined as that of unrealized opportunity. Instruction thruout the college period is more a personal process than at any time before or after. It is helping the student to come to his own—to come to himself. The process is quite as much moral as it is intellectual, and yet it must be carried on in ways appropriate to the environment. Moralizing is not teaching. The moral stimulus must be applied in and thru

[2] *Atlantic monthly*, June, 1909.

those means which the student will recognize as legitimate and timely, and in the use of which he can be brought to take his appropriate part. It must be in and of the actual routine, a part of the recognized method. In some cases the subject may "find" the man. The elective system is capable of producing certain moral effects. Stringent rules may operate efficiently upon students of low grade. Devices in the interest of scholarship may reach here and there a student on the upper grades. What is needed, however, is some moral stimulus which will work up or down into that large body of entirely capable students, who are not now taking any really responsible part in their own training. The purely intellectual stimulus has thus far failed to accomplish this end, and so far as I can see, it is likely to prove insufficient. It does not reach the controlling impulses in the man himself.

The failure of so many methods of advancing scholarship to enlist the purpose and energy of the student in this direction has led me to a new consideration of the principle involved in the system of "honor and pass courses." This system confronts the student upon entering college with the demand that he state in definite academic terms the purpose for which he has come. He is called upon to define himself as a student, partly in his choice of subjects, but more in respect to the proposed quality of his work. The distinction between the "pass" man and the "honor" man is made perfectly clear to him. The student locates himself according to a well-defined and well-organized classification. He acts morally, that is, thru the power of choice and in full knowledge of the consequences of his act. There are manifest difficulties in the way of a transfer of the system to our colleges, and some real objections. I should not greatly fear its supposed undemocratic tendencies. It would not be half as undemocratic to divide college men according to their scholarly aptitudes and ambitions as it is to divide them according to their social inheritances and interests thru clubs and fraternities. The aristocracy of intellectual work is quite as democratic as any aristocracy resting on the uncertain and often fictitious values

of "college life." Another objection of more concern lies at the point we are now considering, namely, the moral maturity or immaturity of our students at the time when the choice between the honor and the pass courses would have to be made. The choice would have to be made on entering college. Under present conditions, of what I have termed unrealized opportunity, the ordinary student would be in danger of choosing against himself, away from his best future. As things now are this same ordinary student usually makes an advance from freshman to senior year. As a freshman he would very likely commit himself to mediocrity. The English boy at the time of choice may be no more mature morally than the American boy, but he has great moral incentives from without urging him to the higher choice. Back of him is his school, which follows him with unrelenting personal incentive, and before him are the prizes of public life so evidently dependent upon the outcome of his choice. The objection, I think, would have a diminishing force if once the system should get into operation. It would develop moral maturity. Before many generations of college students had past, the incoming student would understand the moral significance of entering college. The most practical objection is to be found in the possible difficulty of securing at a sufficiently early stage a right proportion of honor to pass men. If after a fair trial the system should reach only the men now of Phi Beta Kappa rank, or those interested in existing honor schemes, it would be a failure. The whole intent of the system is to reach down into the mass of entirely capable men who are now unresponsive to the highest claims of scholarship. The test of greatly adverse numbers would react against scholarship. A scant minority of honor men would make the position of pass men respectable. On the authority of Mr. Wylie, secretary of the Rhodes Trustees, the proportion of honor to pass men at Oxford is more than two to one. It is admitted that honor men are not all on the same grade, and that colleges differ somewhat in their standards; still the distinction holds without question or criticism. And the fact that the system had to make its own way in its own time as a reform

is a partial answer to the objection drawn from the supposed risk of failure if introduced here.

I pass over the difficulties in administering the system growing out of the rearrangement of the curriculum, involving in many cases the duplication of courses, with a consequent increase of expense (tho no greater, I should suppose, than that of the preceptorial system), for I wish to call attention altogether to the principle of the system. According to this principle a student is put at once under moral responsibility for his college course. That principle is no longer in force in our older colleges. Originally in these colleges the principle was automatic in action. Going to college was in itself an act of definite purpose. It defined the student sufficiently. It is said that in many of the newer colleges the principle still works in the same way. It no longer works in this way in most of our older colleges with many of those who enter them. The question is how to recover this lost or inactive principle. The elective system has failed to realize all that was hoped from it in this regard. The adoption of the system of honor and pass courses, with its challenge to each man upon entrance to college may not be practicable, at least without modifications, but the study of the principle which it asserts may lead to the application of some moral stimulus, which shall be strong enough and definite enough to make the student a thoroly responsible factor in his own training. Such an end approximately reached would set a very considerable amount of teaching free from the toil of getting what you can from those who must, for the larger practise of the art of "getting the best out of the best." It would bring back into greater reality the old-time conception of master and scholar—"him that awaketh and him that answereth."

But besides the increasing demand for moral stimulus in college teaching there is a returning demand for the ability to develop right mental habits. The tremendous interest in the newer subject-matter of education has diverted attention not a little from the structural part of educational discipline. By contrast with the teaching of the subject, the training of the mind has become a tedious and painful process. I assume

that the recognition of the danger from this change led Lord Morley to utter the recent note of warning in his address at Manchester University. After quoting the opinion of a competent observer that "England was not without the stigmata of weakened attention, slipshod in much of its work, fluttering from theme to theme, having no patience with tragedy and falling back on musical comedy," he added, "I think there are some reasons for being a little uneasy as to some of the foundations of opinion in England. I am not sure the evidence is that it is perfectly sound in the preparation. But of this I am sure, that, unsound or sound, one of the greatest of all guarantees for opinion being careful and responsible is the habit of mind that universities are meant to foster. The business and the effect, the splendid effect, of universities is not merely to spread the reading of books, not merely to give knowledge, but to bring students to form habits of mind."

By all academic traditions, in the discrimination to be made between the what and the how in teaching, it is the business of the college to attend to the latter. Experience is showing that this work can not be relegated to the secondary schools. Too much may be expected of them in this regard. However genuine and thoro their training may be, the time has not come, while the student is under their discipline, for the exercise of certain powers which are necessary to the formation of reliable mental habits. There seems to be a growing demand that entrance examinations for college shall be a test of mental power as well as of information. I would suggest that with greater fitness, and with a view to a new kind of academic honor, an examination which shall be a test of power should be placed at the end of the college course. I can conceive that the passing of such an examination, covering a very considerable part of the college course, might become a supreme honor, and that in time it might develop a superior class of honor men whose claim to public recognition would be admitted. Indeed I have been for some time convinced that the greatest incentive to scholarship, apart from an almost impossible accession of great teachers to college faculties, lies in a change in the whole system of college

examinations, thru which the examining and teaching functions should be separated, and all major examinations be put into the hands of a suitable board of examiners. At present the examination is the weakest part of college instruction. It is in no sense a spur to scholarship. It lacks dignity and authority. It is simply a necessary and perfunctory exercise to enforce the recitation and to protect the lecture. It is quite conceivable that an examination system, administered by a separate board of suitable examiners, might recover to our colleges the principle of competition which has been lost to scholarship, stimulating instructors and students alike.

As will be seen from the foregoing discussion, the administrative problems which have been considered are institutional problems. It is for that reason chiefly that they are problems. They have their equivalent in all those institutions which have special interests to maintain in consistency with their general educational obligations. The solution of these and like problems has its reward and its significance not only in what it may accomplish for individual institutions, but far more in serving to perpetuate an invaluable but much endangered element of the higher education—the element of individuality.

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II

MAY THE MODERN LANGUAGES BE REGARDED AS A SATISFACTORY SUBSTITUTE FOR THE CLASSICS?[1]

Judging from the manner in which the question is framed, I take it that a sort of post-mortem investigation is lookt for or wanted. You wish to get a positive and conclusive answer, not one as the result of *a priori* pure reasoning, but one as the result of experience. In the former fashion the question has been discust enough—so the query might indicate. Yes, nearly twenty-five years ago it was pretty thoroly threshed out at one of the most interesting sessions which the Association of the Middle States and Maryland ever held. It was at the old Columbia College buildings at Fiftieth Street and Madison Avenue, about the time when the modern languages most vociferously demanded to be admitted and received into the august and holy brotherhood of academic studies. The session at that time was turned into a regular experience meeting. All sorts of confessions were heard and all kinds of claims were made. The frank utterances of the speakers certainly were most exhilarating as I recall them. The classicists fought valiantly; they used their weapons that had been ground down to a keen edge by centuries of use most skilfully against the young and hopeful modernists and their allies. The wounds they inflicted were clean cuts, while those of the modern language combatants were probably no more than contusions, but everybody was imprest by the vim and vigor of their attack. When we calmly, and free from partizanship and passion, look back to the meeting, we may now admit that the weapons were

[1] Paper read before the Schoolmasters' Association of New York and Vicinity, New York, December 9, 1911.

perhaps not equal. On the one side fought practise and experience; on the other, theory and speculation, hope and promise. The result of the combat, however, was the recognition of the modern language party as a legitimate belligerent power. Of course the conflict did not cease when the tourney came to an end; it was merely transplanted to the arena of the professional and secular press, and there, in a measure, it is still waging. And whether the present status of modern language teaching in our colleges and secondary schools is due to the verdict of the referee of that wordy contest or to other circumstances is of no consequence as regards the answer to our question. True it is, however, that the modern languages, in the course of the last twenty-five years, have more and more forged their way to the front, and like some nations in these recent days, they have asked and did obtain a place nearer the sun; and that in doing so they have encroached upon the rights of others can not be denied. Greek has been almost completely dislodged by them, not only in this country but also in other countries. Even in conservative England, its tenure of office is no longer quite secure as being one of the essential elements of respectability and of a gentleman's education. Neither does Latin hold the same sway over the world as it once did. This change, I believe, has come to stay, and tho the emphasis may be shifted now and then from one subject to the other, on the whole, I think it is safe to predict that in the future the modern languages will gain rather than lose. But whether this be so or not, it is certainly proper for us to look into the trade that we made, to examine into the credit and debit accounts of our school ledgers and to take stock of our present assets. And it is right here that I regret that you did not hire a better and more experienced accountant. I can not give you the figures which such a balance sheet ought to show. I ought to be able to submit to you the results of a pretty far-reaching investigation. It is not *my* opinion, it is the opinions of many we need; we must have facts and the results of actual inquiries, if we desire to get at a halfway reliable conclusion and wish to come near the truth. But as I say, I am not in possession of these facts

and I have not even had time to arrange and tabulate the opinions of others that I have on this subject. You will therefore have to allow me to proceed, to some extent at least, in that *a priori* manner and to present to you the results of my own thoughts and observations only.

For the reason that in recent years an entirely new field of human activity has put forth its claims to be included into the curriculum of the secondary school and that the desirability or advisability of thus admitting it has already been discust in this association, I wish to dwell for a moment on a matter that at first blush may not seem germane to the question before us. But I hope to be able to make you see its connection before I get thru. I maintain, namely, that the backbone or the distinguishing essential of secondary and higher instruction is, and will always continue to be, the study of language both for the formal training it gives and for the ends it leads to. It certainly can not be denied that in the last analysis the literature of a people is the most perfect and most complete expression and record of its thinking and its doing, that is, of its life. Everything that a nation possesses in art and science, in trade and commercial activities, in civic institutions, in ambitions and ideals, in short, in civilization and culture, is found somewhere or other in its literary products. Thus the study of language, with its ultimate aim of literature, is the chief and most indispensable means and at the same time the surest road to wider culture. All other activities contribute and empty their quota into it, widening and deepening it ever more and more; and if perchance every vestige of a people's civilization save its literary products were lost, its former glory could be reconstructed. But this degree of mastering the literature of a people not our own is never reached in school, you may say. True, it is not; but language study leads in that direction and without it you will never get there. Nothing in its completeness and perfection is reached in school, yet *there* must be laid the foundation for everything, and for the most essential subject must be laid the broadest and deepest foundation. But besides this claim which I set up for language study in the higher educa-

tional institutions, that is, those schools that prepare the young for a higher and wider grasp of life, I also believe it has the greatest pedagogic value. It would be worse than folly in this age to underestimate or to try to eliminate from the school curriculum the studies of mathematics, the sciences, the historical, economic, and other studies—they all have values which merely linguistic and even literary studies can never bring out, but in formal, really educative and pedagogic importance, none of these surpasses or even approaches the study of language. This may sound like modern heresy and downright medievalism, or at least, old fogyism. But no matter, I believe it, and for the following reasons: The pedagogic value of a study—a value quite aside from, or at least not identical with practical usefulness—lies in its inherent organism and structure, to master which in its ever widening complexity the human mind must gradually develop and widen, or rather, in and by mastering this complex organic structure the human mind gradually grows and develops. The chief elements in organic structure are gradation, continuity, and consecutiveness. None of these elements is found in any other secondary school study to the same extent as in foreign language study. Not even mathematics shows these elements to the same degree. A few days ago I happened to see the course of study in mathematics pursued in the French lycées for girls. There geometry, algebra, and arithmetic run parallel thruout the whole course. Geometry is begun before algebra in many schools on the continent, contrary to our usage here. I need not enter into further details to illustrate my point. The same, perhaps even to a higher degree, is true of the sciences. In them is not found the absolutely binding sequence. School chemistry may as well precede as follow school physics, etc. Nor is there need in history of a chronological order. Of course English history can be taught more comprehensively and more philosophically in an advanced than in a lower grade, but that is true of any other subject. I simply contend that there exists not the same gradation, the same consecutiveness, and continuity in any of these subjects as in the study of a foreign language and its concomitant beginnings of the study

of literature, and that no other study lends itself so well to the gradual upbuilding of the mind during the period of adolescence.

Now to return to the question before us. Have the modern languages during the last twenty-five years, the period in which they have had a trial in this country, demonstrated that they can perform the functions set forth as the classic languages have performed them in the past? When a consistory of the church is called together to consider the canonization of a saint, I believe there is always appointed a so-called *advocatus diaboli;* that is, a person whose duty it is to say all that can be said against the proposed candidate. Now, of course, with the classics it is not a question of canonization; they have long since belonged to the chosen and have worn the halo. The goings-on of the recent years rather point towards an attempt to decanonize them. I will not lend my services, however, to so invidious a task. I might, of course, repeat all the things that have been said and repeated over and over about the defects in the teaching of these languages, that the actual results have not always been in proportion to the efforts expended, and many other things that even the most ardent supporters of the classics will admit. I presume, too, that the time is past forever when culture was identical with knowledge of Latin and Greek and nothing else, or when it was lookt upon as a defect in good breeding to mispronounce the name of the Greek maiden Iphigenia, but was considered pardonable to be wofully or blissfully ignorant about Dante, Cervantes, Corneille, Shakspere, or Goethe, not to speak of the languages in which their master works were composed. It may also be the prevalent opinion, as I once heard some one say, that despite "less Latin" our schools are as vastly superior to the old monasterial Latin schools as is the tunnelling of the St. Gotthard to the Appian Road, or H. R. M. dreadnoughts to a Roman trireme. The ordinary folk no longer stand in awe before the man who knows a little Latin and Greek, and the boy is fast disappearing, if he has not already gone, of whom Heine speaks in the Harzreise as saying: "You can't associate with that fellow; he is an awfully

bad boy; he can't even decline *mensa.*" But all this is not to the point. The question is: May the modern languages be accepted as an adequate substitute for the classical languages and that which they do or once did in our schools? This demands a categorical answer. But I, for one, am not yet willing to give it, at least not without explanations nor without if's and but's.

A few days ago I met a young German who only recently had taken his doctor's degree at one of the leading German universities and from the state had just received the *facultas docendi.* When he told me that he was a graduate of an Oberrealschule without Latin and Greek I became interested. He was just the person whom I wanted to meet and who might give me first-hand information about the topic I was to discuss this morning, and possibly might furnish me grist for my mill. I therefore began to ply him with a number of questions. I asked him how, in his judgment, students coming from the Oberrealschule compared with the humanistic pupils as to culture in general and as to their ability to study linguistics, especially Germanics. As to the first point, he replied there was no difference whatever; the realists were in as many vital cultural things ahead of the humanists as these were ahead of them in others. The short elementary courses in the classics—courses which, by the way, are now organized everywhere for those studying a profession still requiring a certain *ad hoc* acquaintance with these languages—he continued, supplied all the necessary tools for their linguistic studies—perhaps not for an extensive study of comparative philology—and not infrequently did the thus doctored-up Realschule-Abiturienten even excel the humanistic colleagues in their own domain, because the information which the realists had was of a more recent date; rarely, however, were the humanists able to acquire the facility and the reach in English and French with which the Oberrealschule had supplied the realists. As to my further question whether he did not observe either in himself or in others a certain defect in the grasp of the larger language questions, the categories of language, I might say, he quickly

rejoined: "No, the humanists lookt at everything from their Latin-Greek standpoint—*sie humanisierten alles,*" as he exprest it. "This they did even in literature. They measured everything by classic measures. We, on the other hand, applied a more modern standard to all these things." This gave me an entirely new view-point. But of the greatest interest to me was his contention that as to culture in general he had noticed no difference; in other words, the classics, in his judgment, had been no greater culture factors or no stronger humanizing elements in the education of these young people than the modern language in others. He added, "Of course all my teachers were the product of the old curriculum, and what we younger ones of another school can and will do has still to be proved."

This latter remark of his brings me to a second point that I wish to make. I do not believe that the time has as yet come for stock-taking or for a just estimate of the work, or for a comparison of the relative potentialities of the modern and ancient languages. Not only is the period of twenty-five years an inadequate basis for safe judgment and correct inference, but it is manifestly unfair to compare an infant with a full-grown man. Much of the twenty-five years was consumed in the mere effort to adjust ourselves to the new conditions and this adjustment and adaptation are not completed as yet in all parts of the country. In many places the infant has hardly learned to stand on its own feet as yet, or it is just making the attempt to walk alone. Everybody knows that in many quarters teachers entirely unprepared for the work had to assume the teaching of modern languages. We still meet with the notion here and there which formerly prevailed, but happily no longer, with regard to the teaching of English. Any person able to speak French, German, or Spanish can also teach them. It takes time to eradicate such notions and it takes longer in a subject that has on the whole next to no expert supervision, either as to fitness of the teacher or as to the quality of his work. When the conviction once assumed shape that the proper teaching of English needed proper preparation, it was comparatively easy to bring about

this change; but not so in the modern languages. Nearly all change for the better in these studies had to come either from voluntary effort on the part of the teachers themselves or from the effects which college entrance examinations and similar devices had upon schools and instructors. Furthermore, many of the teachers who taught or had to teach the modern foreign language did not themselves believe in their work; they considered them of minor importance and taught them accordingly. Under such circumstances it is not necessary for the teacher to preach his view from the housetops; the pupils soon understand it. Not until the preparation for modern language teaching is in general as good as that for the classics in this country, and not until the attitude of modern language teachers is that of a profession and a mission, can the case against or in favor of the modern languages be proved.

Another matter which I personally also consider vital in this discussion is that the country does not as yet produce a sufficient supply of native modern language teachers, and far too few of Anglo-American extraction. This may sound strange when coming from one himself of foreign birth and education. But I firmly hold to the proposition that while efficient foreign-born teachers never will be excluded from the teaching of any subject, and least from that of modern languages, where indeed they may act as a strong leaven, the large majority must eventually be natives; it is they that must set the ultimate standard for the work and devise the best methods to be followed. But of course they must equip themselves in a way commensurate with the importance of the task before them.

Another fact must also be taken into account when we speak of the effect and present value of modern language teaching. Thus far there has hardly been reached a consensus of opinion as to the real aim of modern languages. No canon has as yet been set down for them such as forms the very strength of the classics. Perhaps it never can or ought to be thus set down. Nor is there yet any great degree of unanimity among modern language people as to how their work might best be accomplished. To be sure, since the classicists were

held up to scorn for their poor results, new methods have also been devised for them to follow, but they are few compared with those in modern language.

Another and perhaps the most important reason why at this date a comparison of the two branches of language study as to their effect on our schools is yet premature is the fact—and a fact I think it is—that thus far modern languages have not attracted the same class of serious-minded students, or at least not in the same numbers. Tradition is a potent factor in all things, sometimes stronger than logic and reason. Many parents may themselves, tho indeed foolishly, regard Latin and Greek as useless, but not being entirely sure of their ground, they are not willing to take any chances when their sons and daughters show a desire to go to college and to get what is called a higher education, and thus direct them into the time-honored channels. Others appreciating the cultural value of Latin and Greek because they themselves are the product of the same process of education, consider them as a sure road to culture and so direct their children into the same path. Thus modern languages so far have hardly had an equal chance to prove what, under like or similarly favorable conditions, they could do. Perhaps also, for too many who pursue them, the chief attraction lies in their immediate usefulness; yet rarely do they pursue them long enough to get the value which a real command of them can give.

All this, you may say, seems to prove that the study of modern languages in our schools is not on an equal footing with the classics, or at least it seems to point to such an admission on my part. I do not wish to have it understood as such, and it is certainly no unconditional surrender. The changes for the better, especially during the most recent years, make me not only very hopeful, but have actually convinced me that in a not very far remote future most of the external difficulties will have been removed. The teaching staff is visibly getting better; more earnest efforts for preparation are made everywhere. The modern language departments at our universities direct their attention with inceasing vigor toward turning out better equipped teachers, and these themselves look upon their

work as worthy and respectable. The class of students, following up the study of modern languages is undoubtedly improving, the traditional opposition to them and the disregard for them is on the wane, and courses as long in time and as pretentious in content as in the classics are organized in many schools. All this begins to show its effect. As to aims and methods of treatment, too, we are coming nearer and nearer to a general understanding and generally accepted terms; and what is most gratifying, the results are unquestionably improving. I am reliably informed that the examination returns of the regents of this state and of the College Entrance Examination Board are, on the whole, as good in modern languages as they are in the classics, or at least they are no worse.

For the English-speaking pupil the study of Latin is undoubtedly of the greatest importance, especially along the line of etymology. But not much less so is German. An accurate study of this language sheds volumes of light upon the English vocabulary. And what such a study might lack *in intenso,* may it not more than make up for *in extenso?* If the same amount of time and care is given to German—I speak of this language because the presentation of its claims was assigned to me—will not the greater mastery and the larger possession of it—greater and larger perhaps on account of its greater ease—compensate for the loss of the other training?

It is often claimed that the stronger and mentally more sinewy boy is attracted to Latin as he is attracted to a college that admits on examinations only, i.e., because the language presents difficulties to him to grapple with and forces him to do greater work. No doubt there is some force in this claim as regards the choice of his school; but is the boy correct in choosing Latin on this ground in preference to German? Is German so much easier than Latin? It possesses nearly all the difficulties—if difficulties are a claim in its favor—that Latin possesses. Thus, for instance, with the exception of the ablative, it possesses all the Latin cases with almost the same relations; in matters of agreement the two languages are almost identical. The subject of the German subjunctive is no less intricate than that of the Latin. The greater ease, there-

fore, does not rest in the form as much as it does in the proximity of thought of both modern tongues. German thought complexes are modern like the English; Latin and Greek thought expressions are ancient.

Now, one word more as to the cultural value of German, and I rest my case with the jury.

From what I have already said as to my views about the formal and cultural value of the study of language and literature in general, you do not of course expect me to say anything in depreciation of the all-powerful cultural influence of the classics. I fully realize what they have done for the literature of the modern world, and for modern life itself, and I know that they will forever remain treasure-houses from which all future peoples may draw, and that many of the classic masterpieces will remain exemplars for all times to come. I was only recently reminded of this truth when I witnessed a representation of King Œdipus in this city, tho it was by no means a master production. And yet, I just as sincerely believe that we are in error when we assume that this grandeur and sublimity is found only in ancient works. I know that the thoughtful reading and study of *Hermann und Dorothea,* with its restful clearness, with its wisdom, and with its true and elevated heroism of its characters, or of *Iphigenie,* with its loftiness of modernized Greek thought and its purity of form and diction, or of *Tasso,* with its transcendent greatness and purest humanity, not to speak of *Faust,* which is a veritable gospel of thought and reflection, will give as much genuine culture as aught that has been written. And is there anything that directs man's eyes more directly toward the stars than the idealism found in Schiller's best works? I need not go on, altho I might; and it is just in this wherein the greatest advantage of modern literature over the classics lies: it *does* go on.

Only a few days ago I received a letter from an old friend of mine, wherein he asked me: "Have you already seen or read Schönherr's *Glaube und Heimat?* If not, read it. It reminds me both in the magnitude of its theme and in its treatment of Greek tragedy." We may admit that German

literature perhaps has no prose writers as yet of the perfect type of a Demosthenes or a Cicero, but neither have the Greeks and Romans any such lyrists as Goethe, Heine, Liliencron, and a dozen of others, or any writers of fiction and romance such as modern Germany possesses. Without fear of serious contradiction, I might also emphasize the greater interest and the more direct bearing which much of the best German literature has upon our own immediate lives.

In conclusion, I want to repeat once more my belief that any curtailment of foreign language study in our higher institutions of learning will mean eventually a positive loss of ideals and of the higher ends in life, and that when modern language teaching in all its outward conditions has reached a position of equality with the classics, its inherent qualities will entitle them to be regarded as a satisfactory substitute for the classics.

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III

THE PECULIAR OBLIGATION OF THE PUBLIC HIGH SCHOOL

There has been much stir and din in society of late about education. The air has been full of voices, many strident, some blatant, all critical. The burden of their cry has been the practical uselessness of the current processes in education in general and in the high school in particular. Such criticism is not wholly new, altho many of the critics seem to think of themselves as original discoverers.

Some forty years ago I was invited to give an address before the Alumni Association of my own high school, which I had left some ten or more years before. My topic was "School life and its sequel," and I showed to my own satisfaction that the life and work of the school, then fresh in the minds of all of us, was "weary, stale, flat, and unprofitable."

Lookt at from the standpoint of present conditions, there was much to justify such a conclusion. The course of study was meager enough—a prescribed course of three years for all students. Three years of Latin with only Virgil following the Reader; two years of French; one year of algebra; two terms of geometry; two of chemistry; two of astronomy; two of rhetoric; and one each of history, natural philosophy, physiology, botany, and physical geography.

Those who studied Greek escaped all the sciences except natural philosophy, and all the languages except Latin. Composition and declamation were required thruout the course.

Not only was the course meager, but the subject-matter was served in the driest form and in the harshest and most repellent manner. These are some of the criticisms made in the address:

We came to the end of our school life not only with no intellectual bent but with no comprehension of social obligations and no idea of the true meaning and use of government and law.

When the last essay has been read, the last oration delivered, and the echoes of applause have died away, the graduate sits down at home "waiting for something to turn up," as the school committee phrases it, "about to enter upon the duties of life!" The boys one by one enter shops and stores. Here everything is strange, not only new manual work but new mental processes, new subjects of thought, new standpoints, new ways of looking at things. The boy has to reckon and measure and reason and talk, but the methods are not the school methods because life is short and time is money.

His knowledge of physiology doesn't lessen his doctor's bills. His geometry is of little help in measuring his floors or his woodpile. He can't ventilate better for his natural philosophy nor raise corn for his chemistry. He has no business relations with people who speak Latin and Greek, and as for English he never studied it.

Such is the sequel to the school life of thousands of boys. Not only did it not prepare them for the true work and true enjoyment of after life, but by the false notions of knowledge that it gave and by its artificial restraints it rendered such preparation forever impossible. To some extent has this not been the experience of us all?

It was a scathing arraignment. As I have read it recently it seems to me that it contained some truth, and yet, as I see it now, it was not the whole truth. The few boys and girls who were subjected to this course, barren as it seems, did receive from it or thru it a distinct enlargement of intellectual life, a widening of their intellectual horizon measurably superior to anything experienced by the larger number who at different stages left the grammar schools. This is a fact which easily escapes the notice of a twentieth-century doctrinaire.

To the average boy of twelve or thirteen, the change from the easy-going routine of the lower school to the rigid requirements of Latin or Greek grammar, to algebra and ancient history, was like the first plunge into a cold bath. It was quickening and stimulating. It brought the pride of advance and of achievement.

A junior boy not preparing for college was thrown into Worcester's History. No drier book on history was ever printed, but when the boy recited about Tiglath-Pileser and Esarhaddon, altho they were only words, he felt the same

kind of satisfactory exhilaration that the boy in the college class felt when he conjugated *βουλεύω* and said *ἐβεβουλεύκειν* and *βεβουλευμένος*.

I have recently seen a copy of the program of the three days annual public examination in the year of my graduation. Every class in school was put thru its paces before the school committee and the visiting public. Compositions by the senior girls were interspersed thruout the exercises. The final evening was devoted to declamations by the boys and the graduation ceremonies. The list of pieces spoken by the boys is suggestive of a breadth of intellectual life which could only be attained in the high school:

The Death of Leonidas.
Catiline to the Gallic Conspirators.
Bernardo del Carpio.
The Baron's Last Banquet.
Spartacus to the Roman Gladiators.
The Fate of Virginia.
The Taking of the Belan Gate.
The Battle of Waterloo.
Soliloquy of the Dying Alchemist.
Speech of Ringan Gilhaize.

I have dwelt at length upon this example from the early days of the public high school to show that, if ever the charge of practical uselessness was justifiable, it was then. And the charge was made. I made it myself, but I know now that it was only superficially true. And it has never been more than superficially true from that day to this.

During these fifty years the high school course of study has grown immeasurably richer in its content—the equipment in apparatus, illustrative material, and in books ample in amount and superb in quality, and the teaching far more skilful, more stimulating, and more exacting. The elementary schools have improved also during these years, but the high school student has thru all this period experienced a quickening and enlarging of intellectual life unknown to his less fortunate mates. The early high school students were what the students in the academies had been—children of privilege.

From them for generations came the leaders in business, in the church, and in the state. This has never ceased to be true.

Leadership in a democracy has always fallen to those men who had superior intellectual breadth and intellectual alertness, and these have always come from a wider range of intellectual interests, absolutely independent of any immediate or personal practical usefulness.

Those men were profoundly wise who added to all those early courses of study in academy and high school the requirement of declamation and composition.

What was the real significance of that old list of pieces to speak which I read? They appealed to the imagination in expressing the feelings of men in various circumstances, but all at great crises in their lives—Leonidas, Catiline, Virginius, Spartacus, Bernardo del Carpio, Ringan Gilhaize, Napoleon. To put oneself, even in imagination, in the place of a man in a great crisis in his life, to feel his feelings, and to express them in his words, is an educative incident of no mean value. It stirs the currents of the soul. Nor does it lessen but rather enhance the effect when the men are men of other times and other lands.

To the boys in the high school only did the privilege come of thus entering into the deeper currents of the world's life.

The boys in the modern high school have been privileged in other ways. The phrase "trained minds" has been used in connection with education. How are minds trained? By fixing the attention, by judging of relations, by exercising the imagination, by storing the memory. It is the peculiar privilege of the high school student that the subjects of his thought are so diversified, that his judgment is exercised on so great a variety of relations, of things, of persons, of events, as he studies language, and science, and history and literature, that his creative imagination is so actively engaged, and that from so many fields of human knowledge treasures may be added to the storehouse of his memory. Children of privilege indeed are these!

Long ago a writer said, "We can not give our students

science, only directions for making themselves scientific." What it is to be scientific President Porter told in his work on *Mental science*—to observe exactly, to define precisely, to classify correctly, to explain rationally. Recently President Eliot has defined education in substantially the same words.

To spend a part of every day for four years in the effort to become scientific, even if the full fruition is never obtained, affords what I have been calling intellectual enlargement. It matters little along what especial road the mind travels, whether it matches itself against the mysteries of number and force in physics and chemistry, the mysteries of motion in astronomy, or the mysteries of life in biology. The challenge from without and the answering efforts from within are formative influences of prodigious force.

Great is the privilege, too, which comes to the high school student in the study of history—those wider fields of history which lie outside the elementary course—the life and work of those earlier peoples, the fruits of whose genius have enriched all later times—peoples who sounded all the depths of human nature in fashioning and modifying their political systems—peoples whose story is eloquent of struggles for human rights—the words of whose orators and poets issuing from the graphophone of history have perennial power to charm and move.

When Emerson wrote:

> Not from a vain or shallow thought
> His awful Jove young Phidias wrought,
> Never from lips of cunning fell
> The thrilling Delphic oracle;
> Out from the heart of nature rolled
> The burdens of the Bible old;
> The litanies of nations came,
> Like the volcano's tongue of flame,
> Up from the burning core below,—
> The canticles of love and woe;
> The hand that rounded Peter's dome,
> And groined the aisles of Christian Rome,
> Wrought in a sad sincerity;
> Himself from God he could not free;
> He builded better than he knew;—
> The conscious stone to beauty grew.

he had penetrated to a depth of understanding of history which few even of the teachers reach; but if the boys and girls catch even a glimpse of this sublime truth they can never be the same afterward. And the intellectual exhilaration and uplift which may come from such a study of literature as the means and the teachers in the high schools now make possible is almost inconceivable, is wholly inconceivable by those people who, whether within the field of education or outside it, are like Milton's Mammon, "whose eyes were always downward bent, admiring more the gold in heaven's pavement than aught else in vision beatific."

Those interesting phenomena known in the realm of physics as sympathetic vibrations, where one silent string or column of air catches up the rate of vibration of a sounding string or column and emits its corresponding tone, are not confined to material bodies. The great dramatists and poets and novelists range over the whole gamut of human emotions, touch every chord of human sentiment, and make the whole atmosphere resonant with human harmonies and human discords.

The real student of Shakspere, or Milton, or Browning, or Tennyson, or Kipling, finds himself sensitive to these emotions and responding with corresponding notes.

His pulses thrill with a sturdier manliness as he stands with Henry V. on the eve of Agincourt and hears his prayer: "O God of battles! steel my soldiers' hearts."

He admires while he pities Wolsey, forsaken by his king, uttering that most pathetic lament, "Farewell, a long farewell, to all my greatness."

He shakes with laughter at the braggart voice of Falstaff and shrinks with Macbeth at the sight of the dagger that is to kill the king.

In a high school where literature is used aright, the great masters of all ages play upon the minds of young men and women as the wind sweeps the strings of an Eolian harp. Children of privilege, indeed!

To whom much is given, of him shall much be required. This is the fundamental law of human society. The students

in the public high schools are children of peculiar privilege, and they are because of this children of peculiar obligation.

Because of their wider intellectual range, their more extended observation, their more accurate judgment, their more active and more restrained imagination, their better stored memory, they are peculiarly fitted to discover the needs of society, to comprehend its relations, to discover and adapt means to ends.

In business, in politics, in the home, and in the church, their superior powers are needed. The probability is that many of them will in time unconsciously, if not consciously, drift into positions of leadership.

But the new social movements and tendencies are already demanding, and will in the future demand with more insistence, the conscious devotion of all men and women of power to social service.

Modern life in all its departments is differentiated from all earlier stages by two features—the largeness of the units involved and the swiftness of the changes.

The applications of science in developing the old modes of communication and inventing new ones have made possible combinations of people and aggregations of material undreamed of in even recent years. The magnitude of business undertakings, the vastness of production in agriculture and manufactures, the amazing speed with which new inventions are exploited and applied, as seen in wireless telegraphy, the automobile, and the aeroplane, the almost miraculous development of engineering practise so that nothing seems impossible, and all these no longer local but national in their scope, and fast becoming international, make it necessary for the man who thinks at all to think in large units.

The rapid transmission of thought and the ceaseless ebb and flow of tides of travel and the vast increase of periodical publications have made the spread of ideas so easy and so swift that movements of thought chase each other over the broad fields of national and international life as the shadows chase each other over the summer landscape.

Great waves of popular sentiment rise and spread and

break on far distant shores almost before any one is aware of their existence. The temperance movement spread over this country state by state and is now agitating almost all the European countries. The peace propaganda is another illustration of such a world-wide movement, gathering velocity and momentum with surprizing rapidity.

Into our own country have come political ideas which are rapidly overturning the standards and practises of the past. The ideas of democracy are fast undermining the foundations of representative government. The old landmarks are being removed and the old ideas of property and personal rights are giving way.

A new social organization is being evolved, more comprehensive in its scope, more democratic in its principles, more thoughtful of its weaker members, more sensitive in its social conscience.

It is easy to see that never in the history of this or any other country has the demand for broadly trained minds been so urgent. Men, and women, too, who can think in large units, and who can think quickly—discerning minds quick to see the bearing of new ideas—men and women who can distinguish things that differ, who can tell an expert from a charlatan, a statesman from a demagog, a symptom from a disease, substance from shadow.

Never was the danger so great from little men, stupid men, selfish men, for never could they do so much harm as now. Burglars are using the newest products of chemical research in their explosions and the most powerful of automobiles in their flight.

This brings me to the thought which gave title to this paper. It is the peculiar obligation of the high school student to use his enlarged intellectual powers in the service of society.

But the student may not recognize this obligation. This makes it the peculiar obligation of the public high school as an institution to do two things, first, to awaken and develop a *sense* of *social obligation,* and, second, to train specifically for social service. I call this the peculiar obligation of the high

school. I should not deem myself extravagant if I called it the *supreme obligation.*

I am not of those who speak slightingly of high school students, who call them effeminate and say they lack fiber.

In all the wars which have drained the resources of this country, from the early Indian wars to the great Civil War, a large share of the fighting has been done by boys of high school age. Until after the Revolution, the fighting age began at sixteen, and when impressments were made for service the youngest were summoned first.

I have no doubt that if the call should come, the high school graduate of today would respond as quickly as did his father or his grandfather in earlier days and be as manly in it all. And now in great emergencies, when human lives are in peril, there is no lack of young men of steady nerve and strong hand, self-forgetful, to meet and avert the danger.

But because the call of society is not so loud, there is danger that it will not be heard or heeded, and because the service is less spectacular it is not so alluring.

No bugle calls to service in time of peace and the march must be made and the fighting done without the exhilaration of drum or colors.

Two perils beset the high school student of today: he is in danger of being frivolous, and in greater danger of being selfish. Either of these qualities is fatal to social service.

In face of the shortening of the hours of labor, the frequency of holidays, the multiplication of forms and places of amusement, the space in the daily newspapers given to sports, it is hard for the youth to think of life as real and earnest. Rather it seems like one long joy-ride.

This makes the work of the high school peculiarly difficult. To make the youth realize in any adequate degree the reality of life, the actual life that is being lived around him, its problems and its difficulties; to feel that these problems are challenges to thought and effort; that today presents opportunities as real as came to the knights of earlier days; that the modern social movements offer opportunities for heroic endeavor as great as came to the Crusaders or to the daring

followers of Drake and Pizarro—this, I take it, is the great opportunity and the great obligation of the present-day high school.

This means that the students shall be made as familiar with the present as they are with the past; that they shall learn how modern society is organized as they learn of the organization of Greek and Roman society.

Now there is some study, some excellent study of our political organization, but little of the social structure and of social movements. The field is wide and the subjects of study many and varied in any municipality. The object is to get into the mind of the student a comprehensive picture of the life of the community, his community, as it is being lived. It would include the layout of the city or town, its location and topography, the advantages and disadvantages which these offer, its streets and sidewalks and parks; its industries and how they affect the life of the people, including the health and morals; the people themselves, nationalities, housing; the institutions, schools, churches, fraternal organizations, hospitals, charities; provisions for water, sewerage, light; for police and fire protection.

It should be the aim to make the student know and feel that right at his door are fields of study and opportunity for scientific research full of interest and worthy of his best endeavor.

There should be brought to his attention the wider social movements, such as temperance, pure food, tuberculosis, child labor, and conservation.

I believe it would be entirely possible in any community to conduct by means of high school students a scientific survey of the local life and local interests, and that such a survey would be the most fruitful means of social uplift. It must be approached and worked into gradually, and I am inclined to think that such a line of endeavor would offer the most satisfactory field for high school alumni associations, which now have some difficulty in finding reasons for being.

It may seem strange, but it is true, that the two latest movements in education—the play movement and the vocational

movement—while undoubtedly on the whole beneficent, make the work of the high school harder in meeting what I have called the supreme obligation. Each of these movements serves to strengthen one of two tendencies fatal to the spirit of social service.

The play movement tends to promote a frivolous spirit, and the vocational movement tends to promote a selfish spirit.

These movements, as worked out in practise, appeal to the love of pleasure and love of gain of the individual. They are primarily unsocial in their motive. They throw upon the high school the added burden of showing to the student that the better body produced by better play and the greater productive efficiency produced by industrial training make him a better instrument for the service of society.

Under the more or less complete departmental organization of the modern high school, the work for which I have been arguing must fall primarily upon the principal. It should be the grand coordinating force which binds into one cord all the threads of truth from the different departments—the sea into which all the streams run. It is the peculiar obligation of the principal to show what present society is, what it needs, what it is trying to do, and what more it ought to try to do, and then to show that all the knowledge and all the power gained by study, all the vigor gained by play, all the skill gained in the shop, fit the young men and young women for more effective public service, place upon them an added obligation, and afford them an opportunity as splendid as have come to any of the men and women of history whom they have learned to admire.

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IV

THE REAL PROBLEM IN SECONDARY MATHEMATICS [1]

The real problem is no new thing in mathematics, and the question as to the significance and importance of the real problem in mathematics teaching goes back to the first schools in which mathematics was taught. We know that the Greeks profest to despise practical applications as unworthy of their beautiful science, and, on the other hand, we can imagine the warlike, imperious Roman looking with an equal contempt on the formal logic of the Greek mathematics and adopting for his own study only the utilitarian aspects of the subject which appealed to his essentially practical mind.

The spirit in which mathematics has been taught and studied in various lands and at different times since the days of the Greeks and Romans is evident from the numerous textbooks which have come down to us since the invention of printing,[2] and these old books show every possible variation between the two extremes of the strictly logical mathematics of the Greeks and the practical mathematics of the Romans. By no great stretch of the imagination we can picture a group of German or Italian pedagogs of the sixteenth or seventeenth century assembled in convention as we are today—and discussing with an equal earnestness these very questions which are now confronting us.

The discussion as to the proper emphasis upon the logical and the practical in mathematics teaching has only recently come into prominence in this country. We inherited our mathematics from the English universities, where a strict ad-

[1] Paper read before the Central Association of Science and Mathematics Teachers, Chicago, December, 1911.

[2] Stamper, *A history of the teaching of elementary geometry.*

herence to the old Euclidean geometry, and an equally formal algebra have prevailed for centuries. Following these traditions, our colleges, during the early part of the nineteenth century, and our schools during the last half, were content to teach a somewhat modified Euclid, and an algebra very similar to the Euclid in spirit and method.[3]

The last few years have witnessed a decided change in our attitude towards the study of mathematics. The investigating spirit of the twentieth century has dared to question the traditional authority of many subjects of the school curriculum, and the modern spirit of industrialism has demanded an education closely related to the practical affairs of everyday life. A striking example of this latter influence is found in the action of the Bankers' Association of the state of Minnesota in petitioning the state legislature for the appointment of a commission to revise the entire system of public instruction in the state. In mathematics the movement has taken the form of a revolt against the cold formalism of Euclid, and the traditional algebra, and demands that we teach something more practical, more useful, and more vital. In its extreme form it demands that we cease to teach mathematics for its own sake, but teach it rather for the sake of its applications.

The influence of this movement was first evident in England in the work of Mr. Perry and his colleagues,[4] and that the teachers of this country are alive to the need for some reform in mathematical teaching is shown in the activities of associations like this one, and in the work of committees like our Committee on Applied Problems.[5] The use of measurements, of cross-ruled paper, and of laboratory methods in our teaching; the experiments in correlation, in unification, in shop mathematics, are all of them but our various efforts to respond to what we feel to be the spirit of the times, and our attempt to apply modern methods in the teaching of mathematics, with a view to making the instruction vital and prac-

[3] Cajori, *History of the teaching of mathematics in the United States.*

[4] Perry, *The teaching of mathematics* (Macmillan).

[5] "Report of Committee on Real Applied Problems"—The Central Association of Science and Mathematics Teachers (C. A. S. and M. T.).

tical. These are all aspects of the one larger question as to the true significance of the real problem in mathematics teaching. Or to put it in another form, it is the old question of the practical *versus* the logical that is disturbing us at the present day as it has many an anxious pedagog in the past.

It is all a question, after all, of the "values" in mathematical study. It reduces to the question of "Why do we teach mathematics in our secondary schools? What is there in the subject to justify its place in our educational scheme? Do we teach mathematics for its own sake, i.e., for culture; for the sake of the training acquired in its study, i.e., for discipline; or because of the use we can make of it, i.e., for its applications?"

Our answer to this question will vary somewhat according to the particular purpose for which we conceive mathematics to be taught in our several schools. In the technical and trade schools and other schools of a special kind the instruction in mathematics should most properly be framed to meet the particular needs of the students in those schools. But the number of such schools, tho rapidly increasing, is still relatively small, and for the great majority of public and private high schools a more or less uniform course in mathematics is desirable. Such a course should take small account of vocational needs, but should aim to give its students the best possible preparation for life. It should seek to give to the student who is not going to college some measure of the training and culture that his college brethren will acquire, and at the same time some knowledge of the power of mathematics in helping him to meet the problems of everyday life and business. The object of this paper is to consider the question as to what is the proper balance between the cultural and disciplinary values of mathematics on the one hand, and the value of its practical applications on the other hand, in this uniform course in mathematics that we are seeking. And more particularly to raise the question as to how we can best employ the "real problem" in our efforts to secure the desired results in both directions.

That a uniform course in secondary mathematics is *desirable* in all but the schools of a special class I think is generally conceded. The committee on college entrance requirements [6] not long ago recommended in most emphatic terms that the course in the secondary school for the college student and for the non-college student should be essentially the same. This same opinion, as to mathematics particularly, has been exprest quite recently in the report of the National Committee on A Geometry Syllabus.[7] On page 40 of this report occurs this statement: "After investigation, it is the belief of the committee that there should be no attempt to outline different courses for various classes of students in the high schools." This committee, composed of eight representatives of secondary schools and seven from the colleges, was appointed under the joint auspices of the National Education Association and the American Federation of Mathematical and Natural Sciences. They speak with the authority of a national body representative of the mathematics teachers of the country.

While we may be agreed as to the *advisability* of a uniform course, the *possibility* of such a course depends on our ability to get together. During the last few years we have heard preached every doctrine from that of the extreme orthodoxy of the old school to the materialistic creed of Mr. Perry and his followers, and some of us have tried to practise all that we have heard preached. There has been much uncertainty, much experimenting, but from our experimenting has come valuable knowledge, and our uncertainty is giving way to a feeling of confidence. I believe that teachers of mathematics are beginning to be more in accord on this question than has been the case in the years just past, and that there is evidence that public opinion is forming and before long may be expected to crystallize into a definite decision upon this matter of a uniform course in secondary mathematics.

The work of Mr. Perry in England and the activities of

[6] "Report of Committee on College Entrance Requirements."—The National Education Association.

[7] *School science and mathematics,* April, 1911.

various individuals and committees like the "Committee on Applied Problems," has convinced all of us that there was need of much reform in the old methods of instruction. So strongly was this side of the case presented, however, that our lists of problems began to look like manuals for machine shop practise—and enthusiasts began to adopt the views of Mr. Perry that mathematics should be taught solely as a "useful tool," and not for its own sake or for the sake of the mental training it affords. In the words of Mr. Perry, "Mathematics is a powerful weapon with which to unlock the mysteries of nature." The figure here is a little mixt, but the meaning is clear. Mr. Perry carries the figure further. "If a man knows how to use the weapon, that is enough. Let him leave to others the forging of the weapon, the complete study of it." [8]

Fortunately when there was danger of going too far in this direction, the champions of the other side appeared, and we had the report of our Geometry Committee which, while recognizing the value of applications, argued strongly for the teaching of geometry as a logical system—and the Algebra Syllabus of the Teachers of the Middle States, etc.,[9] which announced as the central purpose of the teaching of algebra the "Cultivation of the student's faculty for reasoning." These are but two of many influences that might be cited which helped to keep us secure in our faith that mathematics is worth teaching for its own sake, and prevented our running too blindly after the strange new gods.[10]

I am sure no member of the association needs any justification for his belief in the value of mathematics for its own sake. If there are any such I would refer them to the new book on *The teaching of geometry,* by Professor David Eu-

[8] Packard, "The facts about Perry and his idea"—*School science and mathematics,* May, 1910.

[9] Report of Committee on Geometry. C. A. S. and M. T.; Report of Committee on Algebra, C. A. S. and M. T.

[10] Among others may be cited: Report of National Committee on Geometry Syllabus (reference above); Report of a Committee of the American Mathematical Society, *The bulletin,* November, 1903; Reports of Committees of the Mathematical Societies of Missouri, Illinois, and Wisconsin, etc.

gene Smith, to an article by Professor Hedrick in *School science and mathematics,* on "Topics in elementary algebra,"[11] and especially to the masterly consideration of the whole subject by Thomas J. McCormack in an address before the National Education Association.[12] Mr. Smith concedes the value of the practical applications in geometry but emphasizes the other important reasons for its study. His conclusion is that "Geometry has a *raison d'être* beyond its applications," and that "these applications are sought primarily for the sake of geometry, and that geometry is not taught primarily for the sake of its applications." Similarly Mr. Hedrick points out that problem solving is not the only direct value in the teaching of algebra, but that equally important values are found in its symbolism and especially in the idea of functionality. Mr. McCormack's monograph is the ablest and most convincing answer that I have yet seen to the question, "Why do we study mathematics?" He carries one irresistibly to the conclusion that the traditional reasons for the study of mathematics still hold as strongly as they have ever held, in fact that they present arguments far stronger than any that can be drawn from the practical results to be attained from its study. In fact, if algebra and geometry had had to justify their place in our course of study by virtue of their practical side alone they would long since have been eliminated, for it is not on account of that quality that these subjects have earned their place in our schools, and it is not because of that reason that they will retain it.

The opinions just cited of some of the leaders of mathematical thought in this country (and they might be multiplied indefinitely) are, I think, the opinions coming to be held quite generally thruout the rank and file of mathematics teachers, excepting the few who are teaching in institutions of a *special* character where *special* reasons may prevail. In the report of the committee on the "Teaching of Mathematics in

[11] *School science and mathematics,* June, 1911.

[12] Proceedings of the National Education Association, 1910. Also in pamphlet form, *The Torch press,* Cedar Rapids, Iowa.

the Private Schools of the United States,"[13] out of two hundred replies received from as many teachers, *all* recognize "mental discipline" as one of the aims of mathematics teaching, and nearly all mention as additional aims, "Preparation for more advanced study of mathematics, preparation for the study of other subjects, and the teaching of mathematical truths for their own sake." A composite of the replies shows that by mental discipline in the above connection is meant "a training in intuition, judgment, memory, imagination, reasoning powers; an improvement in ability to concentrate, to think clearly, accurately, and logically; to recognize the essential elements in a problem, to note relationships, apply principles, and understand cause and effect." Nearly all of the teachers above quoted have a firm conviction that general abilities are gained thru the exercise of the mind on a special subject, especially mathematics; or, to put it in another way, that the power, the sense of mastery, the standards and the ideals acquired thru mathematical study are carried over into other subjects and into the general activities of life.

These then are the chief aims recognized in the teaching of mathematics and the reasons offered for its study by practically all of the two hundred teachers replying to the questionnaire of this committee. They are the reasons that have long been familiar to us; the interest here lies in the fact that, at the present day, these same reasons are considered necessary and sufficient.

I do not intend to imply that those quoted do not recognize the value and importance of practical applications in the present-day study of mathematics. They are almost equally unanimous that an important reason for teaching mathematics is on account of its use as a tool in other sciences and in many of the problems of modern life; but this reason is generally subordinated to the others, and is far from being a controlling reason for its study.

A course in mathematics, framed in accordance with the views of the teachers above quoted, would recognize the spirit

[13] Part of the American Report of the International Commission, etc., United States Bureau of Education, Washington.

of the present while preserving the traditions of the past. It would give an important place to the practical aspects of mathematics while clinging to the cultural and disciplinary values as the *underlying reasons* for its study. This is exactly the course that is recommended in geometry by the National Committee on Geometry Syllabus,[14] and I believe it is the course to which we are settling down; the ideal limit toward which we are converging. This committee recommends a "formal treatment of geometry to about the traditional extent," but that "there should be a fusion of theoretical and applied work free from radicalism in either direction." The report goes on to say that "no reference to the applications of geometry is to be construed to mean that the committee feels that the formal side should suffer, or that geometry is wanting in a distinct disciplinary value." I hope we may soon have an equally sane and authoritative report on the subject of algebra. In my judgment we need light there more than we do in geometry.

The insistence on the formal study of geometry and algebra does not mean a return to the *methods* of the last century. Instead we should use all the modern devices possible for presenting the subject and making it clear and vital. A certain standard of logical rigor is not inconsistent with the use of intuition, concrete exercises, measurement, and experiment, nor does it preclude such practical devices as models, apparatus, photographs, cross-ruled paper, and the like. There are opportunities, too, with which every teacher is familiar for lessening the old-time appearance of formality by an improvement in notation and symbolism. I can not see why the clumsy Greek method of naming lines and angles in geometry should have persisted so long. It should have disappeared years ago, as did their cumbersome system of indicating numbers by letters. The demonstration of many geometric theorems is much more readily understood if lines are indicated by single letters and angles by the use of small numbers placed within them. Practical methods and devices such as these need not affect the rigor of our work and have nothing to do

[14] Cited above.

with the results aimed at in our teaching, but are, as Mr. McCormack well says, "excellent for removing the sensual physical obstacles to the intelligent comprehension of geometrical and algebraic truths." [15]

A similar function is, I take it, the most important function of the real problem. It is a *practical device* which serves to make easier the comprehension of mathematical truths. Viewed in this light, we see a justification for the use of applied problems that does not conflict with the ideas exprest above as to the objects of mathematical study. A reasonable number of applied problems creates an interest in the minds of the pupil that reacts strongly in increasing his understanding and appreciation of the logical side of the subject. They supply the student with a motive, and help create an interest in his work. They enable him to approach the abstract thru the concrete, and to assist in fixing general mathematical principles by furnishing a concrete illustration or application for many of the truths of algebra and geometry.

This is a legitimate and valuable use of the real problem, but I can not agree with the contention that the subject of algebra or geometry should grow out of or develop from these real problems, any more than that the real problem should be the end and object of our instruction. Such a concrete basis for the study of arithmetic is advisable, but by the time our students reach the secondary school they should be taught to appreciate other reasons for the study of mathematics, and should be mature enough to proceed by methods which mark a distinct advance over those of the elementary schools. To attempt to make our algebra and geometry relate too closely to the material problems of life is to make of them but chapters in a higher arithmetic, and is to lose in their study most of the value that is peculiar to them.

There is of course a certain intrinsic value in the real problem aside from any light it may throw upon the development of the theory of mathematics. Some general information is acquired in the study of such problems, and their use surrounds the subject of mathematics with a kind of atmos-

[15] McCormack. Cited above.

phere of practicality which makes it seem more worth while to the student. Again it teaches the use of mathematics as a tool, which is legitimate and important. But I can not help feeling that the element of practicality in these problems is often more apparent than real. Some of them are not nearly so practical as they look, and the effort to master the technicalities of others is not worth the effort it costs. Beside, we must not forget that there is in the study of mathematics a deeper practicality than the obvious one of the solution of the few problems one meets in life that can be solved by algebra or by geometry. The most practical knowledge of any subject that one can have is a knowledge of its theory, its principle, and its methods. Such a knowledge may be called a potential knowledge. It is a stored-up aggregation of habits of thought which may be drawn upon long after an algebraic formula or a geometric theorem is forgotten.

How often does an engineer have occasion to use his calculus, or how many of them could apply it if they would? And yet their mathematical training is of inestimable practical value to them in their work. Thru their study of mathematics they have acquired an ability to grasp the essential elements of a problem, a capacity for accurate analysis, a power of visualization, a training of the geometric imagination, that makes possible the wonderful structures which it is their business to create. The case for the high school graduate is essentially the same, tho perhaps in a less degree.

In the growing demand of the present day for a practical education we are inclined to strive after the obvious utilities, and to overlook "the more comprehensive utilities which contribute toward an ideal and intellectual practicality, and, at the same time, are of direct value in even our bread-winning activities." [16]

To sum up the points I have tried to make in this paper: First, a uniform course in secondary mathematics is desirable in all of our schools except those of a special class. The consensus of opinion seems to be that such a course should teach

[16] Durrell, "The utilities in geometric study," *School science and mathematics,* June, 1911.

algebra and geometry for their own sake and as connected logical systems, but with a recognition of the practical value of their study, and

Second, the real problem, with all that the term applies, has an important place in such a course. It is, however, neither the *alpha* nor the *omega* of our teaching. It should not be the *underlying basis* of mathematical instruction above the grade of arithmetic, nor yet the *end* or *object* of that instruction. The real problem has some value in a direct way, chiefly in teaching the use of mathematics as a tool, but its largest significance lies in the fact that it furnishes us with a convenient, pleasant, and withal instructive method of imparting a sound knowledge of theoretical mathematics, which, after all, is mathematics of the most practical sort.

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V

A COMMERCIAL COURSE FOR HIGH SCHOOLS

The American public is rapidly coming to a united opinion that there should be vocational education of some sort and degree for the workers in the various occupations of business and industry. But the establishment of institutions offering such education is a matter largely of local initiative, and local conditions are frequently of such nature as to make it somewhat difficult to get started or even to determine what should be done. In certain lines, however, the course is perfectly clear, and among these is training for commerce and business. Nearly every community, whatever else its dominant industry may be, has its commercial work to be done and the commercial classes of people to do it. Commercial education will be of value to every such community.

Commercial education has already found a place in our systems of secondary education in the form of commercial departments in the regular high schools and in high schools of commerce. Its problems are for the most part those of readjustment to changing and to new discovered needs of individuals and the occupation. The criticisms of business men and of school men of present commercial courses only mirror the conditions that need changing.

The unusual growth of business in our country during the last half century has brought on the problem of getting competent help in acute form. But naturally business managers, in looking for help, have thought of relieving themselves of the routine—the typewriting, the bookkeeping, and record keeping of the concern; hence the schools, in trying to supply business education, have been confronted by this demand and have built up commercial departments around the subjects of bookkeeping, stenography, and typewriting. Commercial

arithmetic, grammar, writing, spelling, and commercial correspondence have been taught as auxiliaries to stenography and bookkeeping. In the meantime, the business man has kept the heart of business to himself, namely, the management, the buying, the selling, the collections, and the struggle of competition with his neighbors. This division of labor in business into managers on the one hand and routine drudges on the other, emphasized by the school commercial courses, and by the forward development in complexity of business has resulted in a situation that has certain bad features that need to be eliminated.

For one thing, it has been found that teaching formalities of business routine does not prove entirely successful in turning out young men and women fitted to enter business, to do their work efficiently, and to progress. How commonly does one find a bookkeeper who really knows nothing about the business for which he makes certain entries and certain laborious postings and abstracts. How rare is the stenographer or clerk who knows anything of what his or her work is all about, and how rare are they who really care beyond doing the immediate task so that it will pass inspection. Both knowledge and motive are lacking.

The problem is somewhat illuminated when we reflect that in the evolution of business the bookkeeping, the office systems, the complicated correspondence methods, the stenography, and typewriting came last, but in training young people for business now we are attempting to teach these subjects first with results that might be expected as indicated above.

Business education, as at present administered, fails for two reasons. In the first place it is too shallow. This is due partly to immaturity of the students enrolled for the business courses in the business colleges and to a certain extent in the high schools, partly to the shortness of the course, and partly to the lack of good business instructors.

In the second place, present-day business education fails because it deals with formalities and leaves out essentials. The average commercial course of study, with its copybook writing, commercial arithmetic, spelling, commercial law, com-

mercial geography, bookkeeping, and stenography is pulp with the juice squeezed out. No matter how mature the student, how broad his other education in English, history, civics, science, and so on, no matter what the character of teaching, such a course does not directly equip him with the essentials of business. The student, in some cases, may already have these when he enters the commercial school; he may get them after he leaves the school, but he does not get them from the school, therefore, there is justice in the business man's criticism of the school.

The commercial school at many points approaches those essentials to the point of "warmness," and a few students, no doubt, gain some knowledge of business reality by inference and imagination; but it will be seen that this result is only accidental, or at least incidental.

What, then, should be done in the commercial course that is not now done? For an answer let us turn to business itself. Let us see what its essentials are. Business concerns itself with the production and distribution of those things which people buy and sell, that is, those things which have economic value. The farmer, the lumberman, the miner, and the fisherman respectively use their arts in order that they may have products to sell. The buyers may be middlemen or consumers, but other than the ultimate consumer each one who buys does so with the intent to sell. The manufacturer takes the raw product and makes such changes in it as in his judgment will meet the desire of buyers. If he has succeeded, his product sells well. Jobbers or wholesalers buy in many markets with judicious care, having in mind the possible demands of their customers to whom they will sell. The retailers are equally intent upon the problem of buying what will sell well to their customers. Lastly, the consumer goes to the market and buys the necessities and comforts of life. The central fact in all business in all times is exchange.

The surplus product of the farm, forest, mine, and sea would never have been produced were it not for the possibility of exchange, that is, for the possibility of selling. No manufacturer would build a costly plant, employ labor, and

buy raw materials did he not think that he could sell his product advantageously. He would not go into producing a new article at present without carefully considering and even testing the possibilities of selling. Selling, therefore, determines what and how much shall be produced. Every department in business is planned either directly or indirectly with reference to its effect on the concern's sales. The automatic machine, the scientific management, the location and construction of the plant, all aim at providing a product for the market that will sell well and that will successfully meet any competition. The offices, the showrooms, the correspondence department, the advertising department, the cost-keeping department, each assists the sales department in its own specific way. Bookkeeping, that reigning queen in the commercial course of study, does little more than make records of the firm's buying and selling. In large concerns, where business policies are determined by a committee system, it is noteworthy that the sales manager or one of his assistants is to be found on every committee. Tho the factory superintendent may invent a wonderfully efficient product, its final form is carefully past upon by the chief of salesmen. Not a change in methods of filling orders, in packing, in the kind and size of package, nor in methods of shipping can be made in an up-to-date factory without the O. K. of the selling department. The result of the sales supplies the sinews of industry, pays the rent, taxes, and insurance, buys the raw material, pays the labor, repairs the plant, provides for depreciation, and, if completely successful, pays dividends or profits to the owners. The concern with the best selling organization, other things being equal, always succeeds the best. Selling is not the only activity, to be sure, in economic production, nor could it be carried on without the others, but it is the central factor from which all the others must take their cue.

The need for salesmanship is not confined to any particular commercial class of people. Everybody must do some buying and selling. We have shown the place of exchange in manufacturing. The principal work of the jobber and retailer is buying and selling. Even the common laborer is a salesman,

for he must sell his labor. Production calls for special knowledge in various lines, such as mechanics, chemistry, electricity, agriculture, and so on, but the procuring of persons with such knowledge is a business proposition involving buying on the part of the employer and selling on the part of the mechanic, chemist, electrician, or agriculturist. An engineer that knows business can command twice the salary of the engineer who knows only his machines. Engineering is one of the chief servants of business, hence the engineer will become a better engineer because he does know business. Backwardness in economic condition of any class of workers is often accompanied by ignorance or inability in business matters including buying and selling. It is a striking commentary on the results of commercial education that the graduates of business colleges and high school commercial departments receive about the lowest wages or salaries of any of the classes of skilled workers. Nor is there a contradiction in this idea that knowledge of selling is the element lacking when we turn to the vast army of poorly paid salespeople in retail stores. Tho these are engaged in selling, yet, according to the testimony of those who have studied the problem, most of them know but comparatively little about business, or even about selling. The best paid are often the cheapest. In German department stores, according to Oscar Tietz, owner of several large stores in the empire, all of the salespeople are school trained. The salaries of saleswomen range from twenty-five to seventy-five dollars, while those of salesmen range from seventy-five dollars per month upwards. This is in a country where the general level of wages is considerably lower than in our country, yet their school-trained worker earns more and gets more than our self-trained store employee. The really good salesmen receive fairly good salaries everywhere. A course in business management, and especially in buying and selling, is essential to any individual, because it helps him to realize his economic opportunities no matter what his regular vocation may be.

Exchange is the life of business, and not until the principles and practise of buying and selling are taught in the com-

mercial schools and colleges can we say that we have practical business courses. Not until students grasp this in its full significance are they fitted to work efficiently. Without it they can not hope to attain much success in business. As in other occupations, the increasing complexity, division of labor, and urgent pressure for immediate results cause it to become more and more difficult every year for the youth to learn a business thru experience. It is easy to be swallowed up in the task and the routine. It is difficult to get into positions where a bird's-eye view can be obtained of the big currents in business; first, because there are few such positions; second, because they usually go to those who have already acquired training or knowledge of a broad character.

The demand is that schools should teach the principles of business and give as much of the practise as may be possible, so that students may have in their minds a concrete basis upon which to build their other studies, such as bookkeeping, office systems, and stenography. Only thru such a course of experience can the usual commercial courses be made intelligible. With the knowledge that may be acquired of the aims and methods of actual business, there comes a mental attitude that is quite necessary in attacking the problems of commercial arithmetic, commercial law, and bookkeeping. The business man confronted by the necessity to write certain letters, to keep certain records or books, or to do any other work about his office, comes to his problem with the knowledge and the motive that will accomplish results, come what may. But the student who knows nothing of such necessities gropes blindly at his lessons whenever he forgets his rules or instructions. At the completion of his course he has learned what? A certain method of doing a certain thing. If his business position brings him into contact with some other method he is helpless until he has learned the new method all over again.

What can commercial schools do about it? They can teach the elements of buying and selling. They can develop in a course the methods and struggles of the individual salesman, the knowledge of the necessary qualities of successful salesmanship, the elements of human nature as seen in the way

people express their likes and dislikes, the essentials of the mental attitude that makes up good salespeople, and the rights and wrongs of the business life. The course might include descriptive studies of the selling organizations such as found in retail and wholesale stores and manufacturing concerns, of the methods used in buying and selling among retailers, wholesalers, and manufacturers, of the methods of advertising and its relation to selling, of the methods for increasing production and selling efficiency, and of methods of granting credit and making collections. The content has been suggested sufficiently for the present purposes by the above. In general, the aims of such a course for a high school of commerce would be:

1. To give to the student a groundwork of ideas about business as at present conducted.

2. To get the student to see what the essentials of business are, so that he will relate his other commercial studies and experiences to their proper places.

3. To give life and motive to the student's studies in the older, more usual commercial studies.

4. To help the student to realize his economic opportunities in life.

As to method, there will be need for the teacher to exercise only such practise as is already current among good teachers. There must be practise work in buying and selling in the same way as there is now practise work for the normal and the trade school students. This practise can be provided for with utmost ease. The following plans suggest themselves, any of which are practicable in almost every community. In fact, all can well be combined.

First, each student should be given the opportunity either to buy or to sell some article in a mock sale or demonstration. This method gives splendid opportunities for getting a high pitch of interest, directed student observation, and class criticism. There need be no special apparatus for this work. All that is needed is the article, or the prospectus of the article, to be sold, one student to act as a careful buyer seeking the best interests of his concern, another student to act as salesman,

trying out the principles taught about salesmanship in the school course.

Second, it may be arranged to have students assist with or do the buying of household necessities for their respective homes, at least while taking this course. Note may be made of all points of selling coming up in their contact with the real salespeople. Where tried, this exercise has been found valuable not only in turning the students' minds towards the business of selling but also in training them to buy to the best advantage.

Third, real selling experiences for a considerable number of the class may be provided by making arrangements with the local merchants to use the students after hours and on Saturdays in minor selling positions, the students reporting to their teachers upon their problems and their success.

Fourth, students should be encouraged to undertake some business activity during vacation, preferably some form of selling.

Fifth, there are often occasions in most schools when the principles of business and of selling can be applied within the school. For example, when an entertainment is given by a class, or when an athletic event is scheduled, or a school paper is established, the selling of tickets, the advertising, the strictly business features should be turned over to and be performed by the class pursuing this subject.

To indicate what place selling should occupy in the secondary commercial course of study, there follows herewith an outline offered tentatively by the writer. The aims of such a course of study must assuredly be broadly practical; hence the problem has been considered not only from the standpoint of the individual, aiming at good physical health, good moral character, and ability to use the mind efficiently in the making of an honest living, but also from the standpoint of society, aiming at the general welfare of all in good citizenship. Commercial training is to be fundamental, but the other ends of practical education are not to be neglected.

There needs to be a study in practical hygiene, telling the student how to keep his body well and encouraging him in

forming right habits of living. There needs to be a course in practical civics, imparting knowledge of the methods of securing public welfare. There need to be the commercial studies, training for making a living, and there needs to be the inspiration of right-minded business teachers to direct the motives of the students into moral and upright business practise and good citizenship.

One of the problems faced by nearly every high school is that many students leave school before the full four-year course is completed. In many cases, this condition is unavoidable. Four years is quite a long time, and many a turn of fortune is likely to take place in that time, removing the support of some in some instances, making the association of school and teachers intolerable in others. Some schools have sought to meet the difficulty by introducing a two-year course in which subjects of a vocational nature are given precedence. Others have tried to keep students from leaving school by so arranging the course of study that the essentially vocational subjects come only in the last two years, making it absolutely necessary to take the entire four years in order to get those studies which will be of practical vocational benefit in life and which are of greatest interest to the average boy or girl. This holds some pupils in school, no doubt, but surely works an injustice with the students who can not stay the full four years, no matter what the inducements. Such administration of the course of study is not square to the people.

The course outlined herewith aims at the presentation of studies in such order as to give to the student a maximum of practical and vocational work from the start. If he can take but one year, he will have at least a foundation of knowledge for becoming a salesman in a retail store, a vocation into which a great number of such students enter, but for which no public school has as yet given much attention. By the end of the second year, if the student elects stenography and typewriting, he or she will be fitted for general office and stenographic work, and simple bookkeeping, as well as being equipped for retail selling. Third-year students receive additional training in bookkeeping, commercial art, and such

broader views and preparation for business as commercial law, commercial history, and the chemistry of commerce can give. Fourth-year graduates will have been trained not only in selling but in some specialized phase of business such as bookkeeping, bank accounting, commercial art, business correspondence, stenographic reporting, and so on. General business vision will have been broadened by studies in business management, economics, business psychology, and sociology.

At the end of the second year a student might be granted a certificate, at the end of the fourth year a diploma. Students should be urged to attend not less than two years; first, because of the small future for the boy or girl who goes into business poorly prepared and immature; second, because of the valuable studies pursued during the second year in commercial English, bookkeeping, hygiene, civics, and commercial geography. These two years lay a practical foundation for business life. The latter two years provide such education as will be profitable for those who may some day become business managers in some capacity or other.

The courses in English constitute a sort of core for the entire four years. The first-year work should consist of a thoro review of the elements of grammar and composition as learned in the elementary school, with additional features on punctuation, paragraphing, and writing. The second year's work should be a continuation of the first, with applications to business writing, business letters of various kinds, descriptions of goods, machines, and processes, selling arguments, etc. For the third year the student takes a course in the reading of several of the English literary classics. This course should aim at increasing the student's culture, his taste for art in literature, and his knowledge of human nature as shown in these classics. In the fourth year the student will be trained in writing selling letters, advertising matter, and business compositions of various other sorts. The reading of classics should be continued. At each stage the student's English should correlate with his vocational subjects, such as salesmanship, commercial geography, and business management.

Elementary science will deal with the facts and forces of nature, but most of the time should be given to biology and evolution. This course will serve as an introduction to three fields, human hygiene, the world of nature, and the application of the idea of evolution to progress.

Local industries, civics, salesmanship, and business management are courses which demand actual field observation by students individually and in groups. In civics the student should become directly acquainted with the local governmental organization and familiar with its methods of carrying on its work. In business management opportunity should be provided for seeing the directors of a corporation in session, for tracing the plan of a factory, for seeing the methods in operation that have been adopted for the purpose of increasing efficiency, and for seeing the sales, advertising, and credit managers at work.

Salesmanship and buying is placed in the first year, for the reason that what is gained in this course will be of great help in interpreting the other business subjects to follow, as well as fitting the student to enter some occupation even if he has had but one year of high school education. In this course the student will be taught the aims of business, the commonly required elements of business courtesy, the necessity for tact, and something about the local industries, materials of commerce, and local commercial geography. The methods of teaching should be largely those of observation of selling and practise in mock sales. In the second year the course in commercial correspondence should put the same ideas regarding courtesy, tact, and knowledge of goods into practise in writing. In the fourth year the student should again receive further training in selling in the course of business management. But at this point, salesmanship in general, rather than retail selling, should be the aim. Even tho the student never becomes a business salesman, this knowledge and training can not but be of fundamental importance to him as a business man and as a citizen. It will introduce him to the purposes of business, which is more essential than the knowledge of technique in the long run.

In drawing and commercial art the student should learn free-hand sketching, lettering, poster illustration, sign writing, card writing, the principles of store decoration, and window trimming. Speaking and voice culture should aim at effective speaking for selling and other business purposes. Chemistry is introduced in this course because of its significance in the production of the modern materials of commerce. At every point it should be illustrated from actual business and industry.

Economics should deal mainly with the problems of distribution of wealth rather than with the fine-spun theories and definitions of wealth, value, normal price, and so on. Humanics, or the study of human nature, should present in practical form the elements of individual and social psychology, especially with reference to how the mind acquires ideas and how it uses them in memory, imagination, and reasoning. Feeling, will, and the instincts and their relation to human conduct should be taught in simple language. After the study of the individual mind the student should be given a survey of mental action in such social conditions as found in suggestion, public opinion, competition, imitation, prestige, fashion, fad, and craze. Men are coming to recognize more and more generally that business, especially in its market phases, is largely a matter of applied psychology. Few have yet seen the importance of sociology, but this will inevitably come. Business education will not be complete without strong courses in economics, psychology, and sociology, as well as in accounting, statistics, and the mechanical technique required in shop, factory, office, or store.

If the student elects language, it should be begun in the second year and continued for three years. Opinions will differ as to what language should be taken, but at present it looks as if the advocates of Spanish have the best of it, for the reason that the future of American exporting and foreign business seems to lie with nations using Spanish and English. The aim of this study should be to have the students acquire both a speaking and writing knowledge, and thus three years are none too many.

Physical training should be required of every student. At

the close of every day's school work, or at some other convenient time, there should be half an hour of directed play. Every student not properly excused should take part. This play period, not indicated on the program, constitutes the real physical training. The weekly period required, as shown in the outlines, should be used mainly for teaching students new gymnastic exercises, games, and for consultation and advice on building up good health and physique.

The school need not offer but two years of stenography and typewriting. It should be an optional course open to students at any time during the four years, but those who do not take it as a regular course should take a course in typewriting offered in the fourth year. Every business man has need for some ability to run a typewriter, hence this suggestion.

Finally, some teacher in every commercial school, preferably the principal, should make a special study of the aptitudes of the students, and the commercial opportunities of the vicinity, so as to serve the students in way of vocational guidance. The school's work will not be considered complete until its graduates are successfully placed, and there is no reason why each school should not serve continually as an employment bureau for the benefit of both graduates and employers in the community. In time to come schools will probably form associations and maintain central clearing houses for large sections, and in that way place every graduate where he can do the best for himself and for his vocation. Such an association will have many other possibilities, such, for example, as interchange of commercial information, credit information, information concerning business opportunities, and so on. In this way the school will become what it should be, a vital factor in the upbuilding of the wealth and welfare of the nation.

The difficulties in the way of administering this course of study are two: first, lack of suitable textbooks; second, lack of teachers trained for teaching subjects like selling, commercial geography, business management, business psychology, and business sociology. To one whose educational experience extends over a considerable number of years there is some-

thing familiar about these objections, for they have been heard every time a new subject has found its way to the schools. But somehow a way has been found thru the difficulty every time.

As to the textbooks, it should be said that the less book and the more observation and investigation of real, material, local business conditions the better. The old-fashioned textbook upon which we American school men place such importance and from which we deviate with such extreme slowness and caution can have but a small place in the courses named in the preceding paragraph. If a textbook will ever become general in such studies, it must be quite different in make-up from anything now used in the older studies.

But the textbook problem need not disturb us if we can but find teachers for these subjects. This is the real difficulty. The normal schools and colleges with normal departments have been negligent of commercial progress and have not yet taken steps to supply teachers for commercial schools. How many public normal schools or colleges with teachers' training departments are doing anything along this line, even for the older commercial subjects? While we wait for the readjustment of the ponderous machinery of these institutions, something may be done by progressive high schools. Some teachers may perhaps be secured from business, especially for part time. Many business men would gladly undertake such pioneer work in the schools for the good of the school and for business. Private schools can supply other teachers, and in so doing reap remuneratively for performing this social service. Many business teachers already in the ranks could, if they would, quite readily extend their usefulness by developing their education into these lines and begin the work almost at once. Where there is a will there is a way. Within ten years such work as outlined, with changes and improvements, will be taught in every good high school offering commercial courses.

A COURSE OF STUDY FOR A COMMERCIAL HIGH SCHOOL

Required Studies		*Optional Studies*
First Year		
English (Gram. and Comp.)	5	
Elementary Science	3	
Commercial Arithmetic	3	
Penmanship	1	
Drawing (Freehand)	1	
Physical Training	1	
Physiography (First half)		
Local Indus. (Second half)	3	
Mental Arith. Drills (First half)		
Salesmanship and Buying (Second half)	3	
	4	General History or Stenography and Typewriting
	24	Recitations per week
Second Year		
Commercial English	4	
Bookkeeping	5	
Hygiene	2	
Civics (First half)		
Commercial Geog. (Second half)	5	
Penmanship	1	
Drawing (Lettering, etc.)	1	
Speaking and Voice Culture	1	
Physical Training	1	
	5	Language, or Stenography and Typewriting
	25	Recitations per week

At the end of second year, students who leave school might be granted a certificate showing that two years have been satisfactorily completed. All students who have completed the work of the first two years should be eligible to begin the third year's work in all subjects excepting language, for which the second-year course is a prerequisite. Arrangements in the program should be made so that this deficiency, when it occurs, might be made up if the student desires to do so.

THIRD YEAR

English	3	
Advanced Accounting	4	
Commercial Law	3	
Commercial and Industrial Hist.	3	
Chemistry	4	
Commercial Design and Art	1	
Physical Training	1	
Speaking and Voice Culture	1	
	5	Language or Stenography and Typewriting
	25	Recitations per week

FOURTH YEAR

English (Advanced Commer.)	4		
Business Organization and Management	4		
Economics (First half)			
Humanics (Second half)	3		
Domestic Science for girls	5		
Physics for boys			
Physical Training	1		
	7	Student to select from subjects given below:	
		Banking	3
		Advanced Accounting	3
		Commercial Art	2
		Public Speaking	1
		Voice Culture	1
		Typewriting	2
		Language	5
		Stenography and Typewriting	5
	24	Recitations per week.	

A diploma should be granted to each student who completes the four years of work.

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UNIVERSITY OF WISCONSIN

VI

THE DOOMED PUPIL[1]

The theme directs our thought to the pupil, the person about whom our organizations and programs center. Of course they exist for him, and for him alone, tho we are often tempted to neglect this supreme fact. Educational administration in a democracy should be so flexible that the needs of every pupil are met without loss or friction. Under ideal conditions all who are of college quality would go to college; all who are not of college quality would continue their education in the activities of the world.

But it is difficult to adjust a great system of institutions and workers, books and methods to every chance and change in the life of the pupil. The very perfection of the mechanism may itself prevent the machine from serving the pupil and his needs. His own development, revealed in new interests and revised choices, his fate with its shocks and surprizes of circumstance, may bring the high school graduate face to face with very serious and difficult problems.

Planning to go into business after graduation from a vocational course, a pupil may discover suddenly and unexpectedly the desire or the opportunity to enter college. Another graduate, having prepared for college, may be compelled by some untoward event to forego this privilege and to seek at once to become a wage-earner. But the former finds himself incapable of college; the latter finds himself incapable of self-support. Both are doomed, at least temporarily, to disadvantage and inefficiency, perhaps to ultimate personal limitation and incomplete realization of themselves, because they are not fitted to meet the requirements of the college or of the world.

[1] Paper read at the educational conference held in connection with the inauguration of President Benton of the University of Vermont, October 5, 1911.

Are such educational tragedies inevitable? The pupil who unexpectedly has an opportunity to go to college is doomed because his work is judged by the authorities to have been so narrowly technical, so lacking in breadth and depth, that he can not be permitted to enjoy the privileges of study in college. The pupil who must give up college plans and earn his livelihood is doomed because his courses have been so narrowly cultural, in the conventional sense of the term, that he can not be of much use to any employer. Both pupils are bound to question whether a four-year vocational course must of necessity be so narrowly technical, whether a four-year academic course must of necessity be so narrowly cultural. The educational layman, sympathizing with the victims, is inclined to say in his wrath: "If a pupil is not fit for college after four years of vocational study, he is not fit for life in any large way; and if a pupil is not ready, or partly ready, for some phase of practical life after four years of academic study, he is not really ready for college."

It is infinitely easier for the pupil and the educational layman to plan the passing of educational tragedies than for those in positions of responsibility to accomplish the salvation of the pupils from educational dooms. But the sorrowing pupil and the indignant public must be heard. To them the solution is most obvious. The "irreducible minimum" for college entrance, whatever that may be, must be included in every four-year vocational curriculum; and vocational courses, no longer outlawed or apologetically admitted among the units for college entrance, must be required as an essential in preparation for college. There could be then no pupil who is doomed merely thru the fateful and tragic workings of curriculums and entrance requirements. If his work in the secondary school demonstrates that a boy is of college quality, capable of the higher efficiency, he is to go to college. On the other hand, if the record of a boy in scholarship and student activities, in vocational work and sports, indicates that he is not of college quality, then school and college cooperate to introduce him to the practical life for which he has been trained, at least in part.

This adjustment of the two conflicting interests, this assimilation of the cultural and the practical, this literizing, so to speak, of the vocational courses, and this vocationalizing of the literary courses may be merely the offhand doctrine of the educational laity; it may be the scheme of the suffering pupil whose desire is the father to the thought. Yet, if the "irreducible minimum" that should form the basis of college requirements were included in every four-year vocational course, and if vocational work in the schools were required for entrance to college, the problem of the doomed pupil would be simplified, if not solved. The doubting critic inquires whether such changes would not mean the purchase of new benefits at the price of the loss of old benefits. Men of faith in a new order of things are eager to attempt to prove by actual experiment that with teachers of a new type, with improved methods and textbooks, and with a student life centered about new interests, the vocationalized academic course and the literized vocational course would produce a more manly type of student for the college, and a more efficient worker for the world.

What, then, is the "irreducible minimum," the one thing essential, the possession of which fits for college the pupil of college quality? If we study the early history of college entrance requirements, we find that the "irreducible minimum" was supremely linguistic. It was, indeed, an irreducible maximum of Greek and Latin and mathematics. If we read the present requirements, we find that the highest valuation is placed upon language, that a condition upon which a student may remain in college is good work in English. One-half of the entrance requirements to Harvard College under the new system are examinations in language, and nearly one-half of the list of subjects from which the subject for a third examination is to be chosen are languages. Three of the prescribed units for entrance to the University of Chicago must be units in English; the seven other units may be in language courses. While a student may enter the university without having studied any foreign language, he is obliged to take English for six months, so that his power to write may be

tested, and he is assured that inefficient students will be automatically eliminated early in the course. The message of the college to the vocational student is that the universal tool is language, that the greatest mechanism is the sentence, that the strategy of logical thinking and clear discourse conditions all effective planning and doing in college or in the world.

This absolute demand of the college for an "irreducible minimum" of preparation in language must be met by the vocational student. His failure to write correct English may play a large part in bringing about his banishment from the college, even after the authorities with generous faith have allowed him to enter. The linguistic and literary training which other pupils have obtained in the study of two or three foreign languages he must secure elsewhere or not at all. And yet, no more than the students of the classics or the students of the modern languages, can he be expected to obtain all the drill in language from the limited course in English. It is from his work in science and history and business and industry that the vocational pupil must secure his drill in language and the mechanics of composition. A new type of teachers in scientific and vocational courses, new methods of teaching, improved textbooks must make this possible, if the vocational pupil is to have any claim upon the college.

As an educator, the vocational teacher of the future must know his Latin, and perhaps his Greek. These language studies he may have taken up at school, at college, or afterward in a frantic endeavor to prepare himself for his work. It would be well if Latin were so much of a favorite study with him that one of the by-products of his courses would be the election of Latin by his pupils. At any rate, he must be a ready master of the linguistics of his subject. On his desk in the classroom should be classical lexicons, and the official English grammars and rhetorics of the school, and they should be sadly worn.

This picture may be balanced by that of the vocational teacher's friend and brother, the classical teacher of the future, the product of the vocationalized academic course. He must be enough of a Roman to have active interest and developed

capacities in the direction of farming or engineering or business administration. He must be enough of a Greek to exercise gifts in artistic handicraft, or in writing on contemporary subjects, or in practical politics. The classicists, like the teachers of French and German, must not merely talk, they must live, the national life which they represent. One can imagine no sadder doom for the pupil than to be dominated by teachers who, as the world knows, and as they are not ashamed to confess to themselves, can earn a living only thru wordy service in the cloistered classroom far from their peers.

The vocational teacher must not be a mere faultfinder in matters of language and composition, a destructive critic after the event; he must consciously and conscientiously play the part of an aggressive constructive teacher of grammar and rhetoric, both pure and applied. For centuries teachers of Latin and Greek have anticipated the classroom work of the teachers of English grammar by their studies of words and sentences and paragraphs and literary forms in connection with the study of the classical languages and literatures. And now, and for centuries to come, the supplanters of classical teachers must serve as the inheritors of these duties. They must in all their teaching anticipate the special instruction in grammar and rhetoric and composition which, when it is given by the English department, will merely formally define and systematize what has long since been informally learned and thoroly practised in connection with the other subjects of the curriculum.

Every subject has its textbook, its notebook, its book of reports and essays. To teach the pupil to read that textbook intelligently, with due consideration of word and sentence and paragraph, to teach him to take notes from his reading with discriminating judgment, to teach him to plan and to write well-constructed reports and essays is one of the most important duties of the instructors in every department.

Every subject has its own distinctive vocabulary, its own peculiar grammatical problems, its own characteristic styles of narration and description and exposition. These must be mastered, since they form the medium thru which the pupil

is to approach the subject. The boy of the eighteenth century parsed, and construed, and interpreted literature all day long in all his classes. The boy of the twentieth century, lover of science, student of a vocation, must do the same thing, not as an artificial torture endured for the benefit of his mind, but as the natural inevitable process which will enable him to think out the literature of his subject. Grammar and rhetoric and logic describe the laws of intellectual etiquette. The pupil is doomed never to enter the society of intelligence, or the world of the higher efficiency, unless he knows these laws and obeys them. And so in history he must parse constitutional documents and statutes and speeches; in science he must explain the construction of the sentences and the paragraphs of the text; in vocational subjects he must study technical words and common words scientifically and reverently, discovering their origins, following their history, defining them accurately and fully.

Tho a stranger to Greek, to Latin, and perhaps to the modern languages, the vocational pupil must come to realize that words and ideas are more alive than his favorite animals and plants, more real than the materials which his hands are to transform. Like the classicists, he must be a constant thumber of a vocabulary, a faithful student of special books sacred to the words of the mother tongue. New times and new pupils make necessary new books. We need vocabularies for our historical, scientific, and vocational courses, vocabularies in the textbooks, or better perhaps, vocabularies compiled by the instructors with special reference to the textbook, the course, and the pupil. Such a book of words, or vocabulary, like the glossary of the technical terms in a book of science, should contain the important, characteristic, difficult words of the subject; like the vocabulary of a classical text, it should give in full the meanings of the words as used in that text; like the word books now compiled for use in high schools, it should explain the derivation of the words; like the great dictionaries, it should give many examples of the use of the words in the literature of the subject; like the encyclopedias, it should state at length what the words have

meant to men, what part the word, the idea, the object has played in the history of national or world events.

The vocational teacher with his literary methods, with his book of words, would literize our scientific and practical courses. By so doing he would standardize and liberalize them. They would begin to assume the dignity of the established courses which colleges trust and rely upon; for such vocational courses would make large contributions to the pupil's power to choose the right word, to write grammatically, to express himself easily and effectively, i.e., to meet the "irreducible minimum" of the requirements for entrance to college.

But a second tragedy must be avoided by school and college. There is another doomed pupil, the victim of circumstances and of the so-called cultural or academic course. He is planning for college, but fate forces him into life, and he finds himself almost absolutely unready. The school has ignored that procession of temporary vocational aims which have fascinated and won the boy year after year. These temporary vocational aims have been directed toward activities which employ both hand and mind, activities in the out-of-doors, or the activities of the shop and the office and the factory. The school has lookt forward to that professional usefulness which can be realized only after five or ten years: later the boy may be a producer, an originator, but not now. Accordingly the pupil can not face college or life with the manly self-respect which comes from the conviction that knowledge and skill already realized will immediately produce work of some value in the market of the world. The ideal boy in these days of ours is the boy who, for the fun of it and the education of it, has so thoroly mastered woodcraft and the art of taking care of himself in the open, that anywhere in the wilderness at any time he has the independence of the savage. For the fun of it and the education of it, the ideal boy ought also to win such knowledge and skill in some art or industry or business, that in a manufacturing and commercial community he may have the independence of the modern workman.

We must, then, vocationalize the so-called cultural or academic courses. In fact, the vitalizing of the standard academic studies is already being accomplished thru the influence of the spirit of vocation. Old methods are being transformed. We speak of the new classics, the new French and German, the new physics, the new mathematics. The soul of this newness is the living, the practical, the useful. The philosophy of the movement lies in the idea that the pupil is not the scientist who desires to know for the sake of knowing, but rather the would-be actor among things and affairs, the would-be player in the game of life, who desires to know in order that he may act and play his part. It is this natural craving for the life of physical activity, creative work, and applauded public service—it is this natural craving, not satisfied by anything in the curriculum, which explains and excuses the present undue majesty of athletics and athletic interests in the school world. In vain does the champion of the purely intellectual studies of the curriculum decry athletics. They must remain in all their exaggeration, until school and college unite in requiring courses which satisfy the insistent desires of the pupil's nature. Soul and body demand a combination of physical and mental activity which involves struggles with something tangible. They demand results of effort which are evident and of immediate value. They demand recognized contributions by the individual to institutional honor and social welfare.

The interest and the passion and the time and the energy which are now monopolized to lesser good by athletics may, and should be, shared by vocational work and studies. Athletics are play that is commanding because it has taken on the characteristics of work. Vocational study is work that is attractive because it has the charms of play. This work, with all its appeals to hand and mind and heart, would aid supremely in making conquest of two great frontiers of the life of the boy, which must be won for high educational purpose, leisure time after school and the long summer vacation. If the college should add to its "irreducible minimum" of language an irreducible minimum of practical work, then, in

the opinion of the educational laity, it would save itself by saving the pupil.

The interests of the pupil and the final convictions of the public must ultimately command the educator. To the contentious classicists and vocationalists the doomed pupil, doomed thru their contentiousness, cries, "A plague on both your houses! Let the man of culture be cultured enough to see power and character realized thru victory over nature and creative dealing with things. Let the practical man be practical enough to see success in managing men and affairs and materials made possible by the mastery of words and ideas and discourse." And the doomed pupil is right. In the old days the hand and the will and the practical judgment were trained thru vocational work at home. In these present days they must be trained thru vocational work at school. If the school does not accomplish what the home once accomplished, then the pupil is doomed to be only half a man in college, and almost no man at all in the world. In the old days the pupil received most of his drill in the English language indirectly, thru the medium of the study of Latin and Greek. In these present days, and even more in the days to come, the pupil must still receive that drill indirectly, but now thru the medium of the study of science and history and business and the arts. If the teachers of science and history and business and the arts fail to accomplish for him what was accomplished by the teachers of Latin and Greek, he is doomed to be an exile from the college, and to be a private, not a captain, in the army of industry.

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VII

NEW YORK CITY SCHOOL REPORT FOR THE YEAR 1911

The Thirteenth Annual Report of the City Schools for the year ending July 31, 1911, is one of the most valuable, suggestive, and interesting educational documents ever issued from a large city. It is the thirteenth, because it has been that number of years since the consolidation of the five boroughs into one great municipality.

For purposes of organization and effective administrative work, the municipality is divided into seven districts, with an associate superintendent for each subdivision, and each associate superintendent supervises the work of the district superintendents in his particular sub-division. The number of supervising superintendents is 35—three of these are women.

THE MAGNITUDE OF THE SYSTEM

For the reader to get a faint conception of the vastness of the city system, he must keep in mind that there are 527 different kinds and grades of public schools within the corporate limits of the muncipality, not including 101 evening schools, while the vacation schools, playgrounds, and recreation centers number 323, and in addition thereto, 47 industrial schools and orphanages receive a share of the public revenue distributed for educational purposes.

The supervisory and teaching staff numbers 18,195 different persons, divided between the sexes slightly in excess of seven women to one man—or to be more exact, 15,942 women to 2,253 men. Last year the total number of pupils enrolled was 770,243, and an average daily attendance of 603,455, which is nearly eighty per cent. of the enrollment.

The increase of the number of pupils over that of the previous year was 18,615, which means an addition to the teaching force of about 500 to instruct these new pupils.

FROM THE FINANCIAL SIDE

The total appropriations required to conduct all the municipal departments of New York City last year was $173,967,835.16. From this sum was deducted $6,000,000 as the tax deficiency in collection, or very nearly 3.5 per cent. This is an unusually high rate of collection of taxes. The system of collecting in this city is certainly very efficient, as compared with most cities in the United States. The schools of New York, as one of the great departments, absorbed $31,355,065.73, or 19.123 per cent. of the total levy. To further complex the situation, the school accommodations are so restricted that the Board of Education could not provide full accommodations for all pupils of school age, so that 65,387 pupils were in school only part time. The school board of New York City can provide school facilities only as means may be furnished by those who have the right to levy and collect taxes. Even in that great corporation, there is a limit beyond which the assessors may not go. In this city there is a continual demand in every department for heavier taxes and larger appropriations, until the prediction of Macaulay is almost literally fulfilled, that a public debt is a public blessing, or in paraphrasing it slightly, a public debt may approximate public confiscation. But the national problem of public education must be faced resolutely, however great the expense may be, and the school authorities are meeting the issue heroically and effectively. As an illustration, the number of part-time pupils during the year 1911 exceeds those of 1910 by 22,641. While the part-time pupils lose something by not attending full time, they do not lose half time in their education, probably not more than from one-fourth to one-third. The half time is largely confined to pupils of the lowest grades. A close inspection of the report reveals the fact that 73 per cent. of all the pupils enrolled in the

schools were between the ages of seven and fourteen, while there were 57,478 under seven and 58,360 over fourteen in the elementary schools.

DEFECTIVE PUPILS

While the pupils are counted by the hundreds of thousands in the city schools, one is struck by the small number of defective or badly handicapped children: the mentally weak numbered 1,745, crippled 498, tubercular 190, anemic 206, blind 95, deaf 208 making a total of 2,752 out of a total of 565,798, or slightly more than four children out of a thousand, or more specifically, one out of every two hundred and fifty pupils. But this includes those who have some pronounced defect of such a nature as to prevent their rapid progress thru the grades. If children be judged by an ideal standard, very few out of a thousand would measure up to a perfect standard. One of the latest things is to standardize children physically, as the agriculturists grow ears of corn which are to be as big at one end of the ear as at the other.

Somehow the child can not be fattened into plumpness at the will of any eugenic culturist that will cause a certain type to grow as he may wish. There is an inherent racial tendency in each that can not be overcome in a generation or two. It may be assumed that the great amount of noise that has been made about badly patched-up children, does not include a very large number. All of us have seen persons in institutions of learning that were physically incapacitated, but yet maintained high standards of scholarship in all classes, despite physical defects. There are certain kinds of childish ailments that are common. These may not interfere seriously with the child's general progress thru the school, but they may be of such a nature as to attract the attention of the medical inspector, and he would report the matter to the parents.

AGES OF THE ELEMENTARY SCHOOL GRADUATES

The total number of pupils that completed the elementary course of study was 35,329, ranging in ages from thirteen to

nineteen, out of a total enrollment of 711,801 and an average daily attendance of 568,391; these graduates number five per cent. of the total enrollment, and six and three-tenths per cent. of the average daily attendance. Of those that graduated 743 were under thirteen, 6,903 between thirteen and fourteen, 13,206 between fourteen and fifteen, 9,708 between fifteen and sixteen, 3,862 between sixteen and seventeen, 802 between seventeen and eighteen, and 19 over nineteen years old. Putting this another way, eighty-six per cent. of these pupils did not exceed sixteen years of age. An encouraging feature was that the number of graduates for the year just closed showed an increase of thirteen per cent. over the previous year.

THE HIGH SCHOOL ENROLLMENT

The enrollment of pupils in the high schools presents some very interesting facts relating to the ages of those in attendance.

There were 43,067 pupils in the different high schools, and of this number 20,062 were boys and 22,985 girls. This is a larger percentage of boys in proportion to the enrollment, than in any other large city in this county, altho the entire enrollment in the high schools is less than the mean average as compared with the total number in the elementary schools. Looking more closely at the high school enrollment, as a group of individuals, there were 645 pupils between twelve and thirteen years of age, 4,378 between thirteen and fourteen, 10,532 between fourteen and fifteen, 11,719 between fifteen and sixteen, 8,332 between sixteen and seventeen, 4,736 between seventeen and eighteen, and 2,705 eighteen and over. The total number of graduates was 3,013—1,048 boys and 1,965 girls. This table would have been more valuable had it shown how many of these pupils belonged to the first year class in high school, the second, the third, and the fourth, and the withdrawals from each class. As a general rule the younger pupils are more persistent in their high school attendance than the older and more mature ones. How-

ever it appears that 36 per cent. of the high school pupils withdrew during the year.

THE AGES OF THE ELEMENTARY PUPILS

A very remarkable fact in connection with this table is that the extreme variations in each of the eight grades is nine years. This table is a confirmation of the spread of the grades as the author of this article deduced them some years ago, and pointed out then that retardation based on the ages of children in the grades was a misleading factor, if considered alone. Yet the great bulk of the pupils in any grade will be found where theory places them. Of 565,798 pupils belonging at the close of the year, 131,858 were above normal age, or 23.3 per cent. The percentage below the mean average age is not given, but it is safe to estimate it as from 10 to 15 per cent. The results are about what the statistics thruout the country would indicate in the best organized schools, and the over-age percentage is about as low as it can be reduced without promoting pupils who are not prepared to do more advanced work. The disturbing factors in a school system may be reduced to a minimum, but they can never be entirely eliminated. Whenever tardiness and attendance are eliminated along with slowness and dulness and over-age, and everything is "100," then it is a good time to send for help. The New York City schools are dealing in the fullest sense with the children as they are.

AGES OF THE ELEMENTARY GRADUATES

The ages of these pupils vary almost as much as the ages of the pupils in any one of the other grades. The heaviest cluster is from thirteen to sixteen, and then a perceptible thinning down below and above. Putting it into another form, 59 per cent. of these graduates were from thirteen to fifteen years old, and 41 per cent. over fifteen. This is an excellent showing.

PROMOTIONS

There is no uniform practise governing promotion in the elementary schools of the different cities of this country. Some cities promote once a year, and a few three times, and one city, St. Louis, four times a year, or at the end of every ten weeks. Kansas City, Missouri, for instance, measures the progress of its pupils in terms of a year's work. A pupil does a year's work, more or less, according to the ground he covers. There is a real demand for reducing this phase of measurement to some uniform standard. By the system of measurement adopted in New York, the total promotions were 1,126,493, or 88.6 per cent. for the entire year. In the different boroughs, the variations for promoting differ slightly, but for statistical purposes they may be regarded the same, thus indicating that the work everywhere is carried forward on the same level.

HELPING SLOW PUPILS

New York City has its share of slow, backward, and defective pupils. No other city has worked out a more effective system of helping such pupils in their studies. A sharp distinction is made between the dull child, the slow child, and the lazy child, and this is as it should be. The help rendered in such cases is regular, systematic, and intelligently given. The object aimed at is to get the pupil to use his own brain, and not to borrow other brains to do his work. Various plans are suggested, such as helping in groups by the regular or substitute teacher, by the brighter pupils, by having such pupils as choose to do so to come to school before regular school hours that the teachers may assist them. In no other city is the method of helping pupils so well planned and administered.

PEDAGOGICAL SUGGESTIONS

The report abounds with valuable pedagogical suggestions. Under the head of biological teaching, it appears that in the

Morris High School, owing to the meager results that had hitherto been obtained, permission was granted to make an experiment involving a study of the structure and function of plants, animals, and human beings along parallel lines, and this plan seemed so rational and simple that it was soon adopted in all the other high schools of the city. In nearly all the schools human physiology and botany had been studied as independent branches, having only a slender thread connecting them in any way with the larger subject of biology. This is all changed now. In fact pupils may have studied different specimens from plant life or animal life without suspecting any close connection with comparative human anatomy and physiology.

The view-point under the new method is entirely changed. Each subject is a part of a much larger subject, seen as a unity. Such a presentation produces a very different effect upon the mind of the learner than the fragmentary one that has been in vogue so long in most institutions of learning. The new method is certainly more interesting to the pupils, because of the human element that enters into the instruction. It reaches down into the daily life of each pupil by showing a unity in the structure of all living organisms. The points especially emphasized are structure, assimilation, involving growth, maturity, reproduction, and decay. About these great truths all the teaching is made to cluster.

MATHEMATICAL INSTRUCTION

The course in elementary mathematics has been modified by introducing a course in advanced arithmetic after the pupils have studied algebra and plane geometry. This change was made to give the pupils the necessary skill in arithmetical processes. Under the persistent clamor that pupils did not have any use for ratio and proportion, these subjects have been re-incorporated for the benefit of those pupils who leave high school at the end of the first year. The ideas of cause and effect are more distinctly brought in proportion than elsewhere in the elementary course.

ENGLISH TEACHING

Of all subjects taught in American institutions, the one that is up highest in the air is that of English, so-called. Of the reading of books and the writing of themes in order to perfect the pupils in the use of speech, both written and oral, there appears to be no end. Books and literary unities are dissected and labeled, and then put away to dry out. The labor is tremendous and the results will compare favorably with the classical reference of shearing a hog to get wool!

The report offers some excellent suggestions which will well repay a careful perusal. Emphasis is laid on oral English, grammar, and elocution. The pupils are trained to read with proper enunciation, pronunciation, inflection, and phrasing. They are to read so as to be heard, to be understood, and to be felt—qualities of reading not easily acquired.

These will suffice to indicate the changes advocated in the teaching of other subjects such as Latin, French, and German. However, before dismissing this part of the report, I wish to call attention to the subject of drawing. Here emphasis is placed on three distinct topics: Representative drawing, design, and mechanical drawing. This work is properly distributed by having one phase systematically pursued till it is well understood. The work is well fitted together in this department.

SUMMER VACATION SCHOOLS

To lessen student mortality among the high school pupils, summer sessions have been established. These courses are seven or eight weeks in length. They help the slow, the bright, and quick pupils, and those who can attend school only a short time. The advantages of such schools are clearly set forth with a directness and reasonableness that compel assent.

VOCATIONAL WORK

The progress of this work in New York City is full of interest as a school question. An American community in

which only a slight sprinkling of foreign children is found is so unlike the conditions existing anywhere in the great metropolis that a comparison of conditions can only be conceived of by contrast and not by agreements. Even the citizens of New York, except in a few instances, do not realize how different their environment is from that of Philadelphia, St. Louis, or even Chicago. New York City is the great mouth of the United States into which everything that comes to this country is poured. It is a heroic struggle that the authorities are making, thru the agency of the schools, to manufacture American citizens. Out in the Mississippi Valley, the children are born American citizens, and then they keep on growing in the same direction all their lives. The foreign element is quickly absorbed, but not so in New York. It persists.

TESTING HIGH SCHOOL APPLICANTS

Since New York City pays higher salaries to teachers than any other city in the world, and the supply is in excess of the demand, it is proposed to administer a practical test to applicants in the schoolroom with a live class by testing the applicant in his specialty under a first-class assistant teacher in that specialty, who will report his observation to the Board of Examiners. Of course the applicant ought to conduct several recitations with different classes, and the first one should be early on Monday morning, at which time the pupils usually do not know the lesson, and the applicant would be thrown largely on his own resources.

If such a scheme were generally adopted thruout the country, it would be very beneficial. Within the memory of some of the high school boys and girls in a Western city, a vacancy occurred in one of the departments and the superintendent and the teachers' committee hustled around to find a well-qualified person. A university graduate was highly indorsed and recommended to them. His credentials were fine on paper. He was telegraphed to come. He came with all his degrees. When he was once installed, he could not keep order; his

eyesight was microscopic, he was tongue-tied and stuttered, and he was bow-legged and knock-kneed. In short, he was a perfect example of pitiable helplessness before a class of high school pupils. He had no qualifications to teach except degrees, and these were inoperative.

While the test proposed is not a universal one in its application, yet it serves as a better guide than any other one that has yet been proposed elsewhere by school authorities.

CHOOSING A CALLING

Superintendent Maxwell is not in sympathy with some of the so-called practical educators who want fifth and sixth grade children to choose what their future course in life shall be. On this proposition he is eminently sound. The child is unequal to making such a decision. The aim of the schools is that of efficient citizenship, whatever the occupation later in life may be. There may be some children who, in the upper grammar grades, will be better equipped for life by taking an abridged or preparatory trades course, but these are the exceptionally slow ones.

THE COST PER PUPIL

The money annually expended in the city of New York for public education is bewildering in its vastness. Last year the total was $33,161,710.19. The teachers' salaries amounting to $21,375,552.95. The cost of educating a child, based on the average daily attendance was $44.90 for all the schools. However, the cost per pupil on the average daily attendance in the elementary schools was $33.11, in the high schools $84.41, and in the training schools $98.96. Financially, the expenditures, considering the magnitude of the work, are reasonable and show the business ability of those who manage the fiscal affairs.

CONCLUSION

I have read the advanced pages of this report with deep and unabated interest. For city superintendents, professors of education in normal schools, colleges, and universities, and particuarly for all betterment and improvement committees in general, I know of no other public document that is more helpful, or that contains more general and special educational matter, bearing directly on pedagogical questions, than this one. It is a distinct contribution to the educational literature of this age.

JAMES M. GREENWOOD

KANSAS CITY, MISSOURI

VIII

THE REGISTRATION OF TEACHERS IN ENGLAND AND WALES

[For the purposes of accurate information and permanent reference there is reprinted in full herewith, from the London *Times,* the text of the "Order in Council" establishing the registration of teachers in England and Wales, which past the seals on February 29, 1912. This Order is regarded as of the utmost importance and has been hailed in Great Britain as a new professional charter.]

Text of the Order in Council

At the Court at *Buckingham Palace,* the 29th day of *February,* 1912.

Present,

The King's Most Excellent Majesty in Council.

Whereas by section 16 of the Education (Administrative Provisions) Act, 1907 (in this Order referred to as "the Act"), it is enacted that it shall be lawful for his Majesty, by Order in Council, to constitute a Registration Council representative of the teaching profession, to whom shall be assigned the duty of forming and keeping a register of such teachers as satisfy the conditions of registration established by the Council for the time being, and who apply to be registered.

And whereas by subsection (4) of the said section it is enacted that such provision shall be made by Order in Council under that section as may appear necessary or expedient for transferring any funds or property held by the Teachers Registration Council established by Order in Council made under

paragraph (*a*) of section 4 of the Board of Education Act, 1899 (in that subsection referred to as "the existing Teachers Registration Council"), to the Registration Council to be constituted under that section of the Act, and for winding up the business of the said then existing Council, and thereafter dissolving the said then existing Council.

And whereas, by Order in Council, made on the 25th day of January, 1908, it was provided that upon the 31st day of March, 1908, the funds and property of the then existing Teachers Registration Council should, by virtue of that Order, stand transferred to the Board of Education (in this Order referred to as "the Board") to be held (subject to the satisfaction and discharge of any expenses and liabilities of the said then existing Council outstanding on the said 31st day of March, 1908) on trust to transfer the same to the Registration Council to be constituted in accordance with subsection 4 of section 16 of the Act as aforesaid, and upon the said 31st day of March, 1908, the said then existing Council was by virtue of that Order dissolved.

And whereas the expenses and liabilities of the said then existing Council have been satisfied and discharged, and the funds and property of the said then existing Council are now held by the Board upon such trusts as aforesaid.

Now, therefore, his Majesty, by and with the advice of his Privy Council, and by virtue of the authority committed to him by the Act, and of all other powers enabling him in that behalf, is pleased to order, and it is hereby ordered, as follows:—

1.

There shall be established a Registration Council, representative of the teaching profession (in this Order referred to as "the Council"), constituted as in this Order hereinafter provided.

2.

There shall be assigned to the Council the duty of forming and keeping a register of such teachers as satisfy the condi-

tions of registration established by the Council for the time being, and who apply to be registered.

3.

(*a*) The Council, when complete, shall consist of 45 members—that is to say, a chairman and 44 ordinary members appointed (subject to the provisions of this Order) by the corporations, associations, and bodies (in this Order referred to as appointing bodies) or groups of appointing bodies mentioned in the first column of the First Schedule to this Order in the numbers respectively set opposite to the name of each such appointing body or group of bodies in the second column of the said Schedule.

(*b*) Every person appointed as an ordinary member shall be a person who is at the time of appointment engaged in teaching, or who, in the opinion of the appointing body or group of bodies, has recently been engaged in teaching.

(*c*) Every body to which is assigned the appointment of more than one member shall include at least one woman amongst the members appointed by them, and in determining the number of women to be so appointed shall have regard, among other things, to the number of women engaged in the branch of the teaching profession represented by the body.

(*d*) Before making an appointment under this Order an appointing body mentioned in the first part of the First Schedule hereto shall invite and consider a report from the advisory body (if any) mentioned in the third column of the first part of the First Schedule opposite the name of the appointing body, provided that for the purposes of this Order the appointing body may delegate their powers of appointment to the said advisory body, if any.

4.

The term of office of the members of the Council shall be three years. In the case of the first triennial period the appointment shall date from the 1st day of July, 1912.

5.

The Chairman shall be elected by the Council from outside their own number and shall be eligible for reelection.

6.

On or before the 1st day of July, 1912, each of the appointing bodies to which is given the power of appointing one or more members shall notify to the Board the name and address of each member appointed by them.

7.

Each group of bodies to whom is given the power of making a joint appointment shall by agreement between the bodies appoint an officer whose duty it shall be to notify to the Board, on or before the said 1st day of July, 1912, the name and address of the member whom that group have agreed to appoint. If owing to the failure of any such group to agree upon an appointment, or for any other reason, notification of an appointment is not sent to the Board on or before the 1st day of July, 1912, the Board shall inform the Council, and the Council in place of the group concerned shall at their preliminary meeting, to be held in accordance with the provisions of the second Schedule hereto, appoint as a member of their body a person who would, in their opinion, have been qualified in accordance with the previous provisions of this Order in respect of the kind of teaching concerned, and any member so appointed shall be deemed to be appointed by the group concerned.

8.

The two last preceding articles shall apply to subsequent appointments of members of the Council at the commencement of each triennial period, subject to the following modifications:—

(*a*) For the words "1st day of July, 1912," wherever they occur, shall be substituted the words "first day of each triennial period."

(*b*) For the words "the Board," wherever they occur, shall

be substituted the words "the person appointed for that purpose by the members of the outgoing Council."

9.

The Council shall at the beginning of each triennial period appoint ten committees, each representative of one of the kinds of technological or specialist teaching mentioned in the Second Part of the First Schedule to this Order. Each such committee shall consist of (i.) the member or members of the Council appointed by the appointing body, bodies, or group of bodies whose names are in the said Schedule and (ii.) such other persons (not being members of the Council) as the Council may select. Every person so selected shall be a person who, being engaged in the particular kind of teaching concerned, or having recently been so engaged, represents the views and interests of the teachers engaged in that branch of the profession.

Before making any selection the Council shall invite and consider any recommendations made by the said appointing body, bodies, or group of bodies, and by such other bodies as the Council may deem to be interested in the kind of teaching concerned.

10.

Before establishing the conditions of registration to be satisfied by persons applying to be registered, the Council shall refer the drafts of any such proposed conditions to each of the committees constituted to represent the branches of technological or specialist teaching as provided in this Order, and shall receive and consider any reports made by each such committee.

11.

The Council may appoint such other committees, consisting of members of their own body, as for the purposes of their business they may think expedient.

12.

If the conditions of registration established by the Council provide for the charge of a fee to persons in respect of registration, they shall provide for that fee being charged at a uniform rate, whether annually or otherwise, to all such persons.

13.

As soon as may be after the 1st day of July, 1912, the Board shall transfer to the Council the funds and property of the former Teachers Registration Council then in their hands, and the receipt of the chairman and any two members of the Council, appointed by the Council by resolution for the purpose, shall be a sufficient discharge to the Board for the receipt of any such funds and property.

14.

The Council may out of the funds and property of the Council under this Order, or out of fees payable to the Council in respect of registration or otherwise, provide such offices and appoint and employ such officers and servants as may be required for the purpose of their duties, and may pay to any person so appointed or employed such remuneration as the Council think fit.

15.

No act or proceeding of the Council or any committee of the Council shall be questioned on account of any vacancy in the Council or committee.

16.

Any member who is incapacitated from acting, or who communicates in writing to the Council a wish to resign, or who is adjudged bankrupt, or makes a composition or arrangement with his creditors, or is absent from all meetings of the Council and its committees during a period of six months (except for some reason approved by the Council), shall thereupon cease to be a member of the Council.

17.

A member appointed to fill a casual vacancy shall be appointed only for the remainder of the term of office of the outgoing member and subject to the same provisions as respects the body or group of bodies by whom he is to be or is to be deemed to be appointed, provided that the procedure by which an appointment by a group of bodies or by the Council in default of agreement by any such group is to be made shall be such as the Council by standing order or otherwise shall determine.

18.

The accounts of the Council shall be audited in such manner and by such body or person as may from time to time be directed by the Treasury, and copies of the accounts and of any report made upon them by the auditor shall be transmitted by the Council to such bodies or persons as the Treasury may require.

19.

The provisions contained in the Second Schedule to this Order shall have effect in each triennial period as respects the preliminary and first meeting of the Council and the election of the chairman, but subject to the provisions of this Order and of that Schedule the quorum, proceedings, and place of meeting of the Council and of any committee of the Council shall be such as the Council determine. If a casual vacancy occurs in the office of chairman it shall be filled by election by the Councillors in such manner as the Council by standing order or otherwise shall provide.

20.

The Interpretation Act, 1889, applies to the interpretation of this Order as it applies to an Act of Parliament.

21.

Any application by the Council for the revocation or alteration of this Order or for any addition to it shall be made

at least six months before the expiration of the first or any subsequent triennial period.

22.

This Order may be cited as The Registration Council Order in Council, 1912.

ALMERIC FITZROY

FIRST SCHEDULE

APPOINTING BODIES AND COMMITTEE

PART I

Appointing Body	Number to be Appointed
The Hebdomadal Council of the University of Oxford ..	One
The Council of the Senate of the University of Cambridge	One
The Senate of the University of Durham	One
The Senate of the University of London	One
The Council of the Victoria University of Manchester ..	One
The Council of the University of Birmingham	One
The Council of the University of Liverpool	One
The Council of the University of Leeds	One
The Council of the University of Sheffield	One
The Council of the University of Bristol	One
The University Court of the University of Wales ..	One
National Union of Teachers	Seven
National Association of Head Teachers	Two
National Federation of Assistant Teachers	Two
Headmasters' Conference	One
Headmasters' Association	One
Headmistresses' Association	Two
Assistant Masters' Association	One
Assistant Mistresses' Association	One
Association of Preparatory Schools	One
Private Schools' Association	One
College of Preceptors	One
Teachers' Guild	One
Froebel Society	One

[The advisory body to the Senate of the University of Durham is the General Board of Faculties; to the Senate of the University of London, the Academic Council; and to the Universities of Manchester, Birmingham, Liverpool, Leeds, Sheffield, and Bristol, the respective Senates.]

PART II

Appointing Body or Group of Bodies	Number to be Appointed
Association of Technical Institutions	One
Association of Teachers in Technical Institutions	One
National Society of Art Masters	One
Art Teachers' Guild	
Royal Drawing Society	
Royal Academy of Music	One
Royal College of Music	
Union of Graduates in Music Incorporated	
Union of Directors of Music in Secondary Schools	
Incorporated Society of Musicians	
Guildhall School of Music	
Royal College of Organists	
National Shorthand Association (Incorporated) Teachers' Section	One
Society of Certificated Teachers of Shorthand	
Association of Bookkeeping Teachers	
Incorporated Society of Commercial Teachers	
Association of Teachers of Domestic Science	One
National Association of Manual Training Teachers	One
Educational Handwork Association	
Incorporated Gymnastic Teachers' Institute	One
British College of Physical Education	
Ling Association	
National Society of Physical Education	
Union of Teachers of the Deaf on the Pure Oral System	One
National Association of Teachers of the Deaf	
College of Teachers of the Blind	One
Smith Training College of the Royal Normal College for the Blind	
Training College Association	
Teachers' Training Association	

SECOND SCHEDULE

Preliminary Meeting

First Meeting

Election of Chairman

1. In the case of the first appointments the Board of Education, and at the commencement of subsequent triennial periods a person appointed for that purpose by the members of the outgoing Council, shall summon a

preliminary meeting of the members appointed, and for that purpose shall, not less than fourteen nor more than twenty-one days after the commencement of the triennial period, send by post or deliver at the address of each person appointed to be a member of the Council a notice specifying the day, hour, and place at which the meeting will be held.

2. The Councillors shall at the meeting or at any adjournment thereof appoint such person as they think fit to record the proceedings of the Councillors, and shall in the case of any adjournment of the meeting provide for notice of the time and place to which the meeting is adjourned being given to the Councillors not present at the time of the adjournment.

3. The Councillors shall at the preliminary meeting or at any adjournment thereof appoint from among their own number a person to act as temporary chairman at the preliminary and at the first meeting of the Council until a chairman of the Council is appointed in accordance with the provisions of this Schedule. The temporary chairman shall have a second or casting vote in the event of there being an equality of votes on any appointment or upon any other question arising at the preliminary meeting.

4. The Council shall at the preliminary meeting determine the day, hour, and place at which the first meeting of the Council is to be held, and shall provide for notice of that meeting being given to any Councillors who are not present at the preliminary meeting.

5. At the first meeting of the Council the temporary Chairman shall preside until a chairman is elected as next hereinafter provided, and as soon as the temporary chairman has taken the chair the first business shall be the election of a chairman. The person receiving the largest number of votes shall be elected chairman. If two or more persons receive an equal number of votes the temporary chairman shall have a second or casting vote.

6. The election of a temporary chairman, a chairman, or a councillor shall not be proceeded with unless at least fifteen councillors are present and vote.

IX

REVIEWS

The Montessori method of scientific pedagogy as applied to child education in the children's home—By MARIA MONTESSORI. Translated from the Italian by ANNE E. GEORGE. New York: Frederick A. Stokes Co., 1912. 377 p. $1.25.

Unusual interest in this book, the most important contribution to educational thought that has appeared in many years, has been aroused first by a series of articles on the method which it describes, published in a popular magazine, then by courses of lectures given in this city and elsewhere on the same subject. For the first time, perhaps, in the history of education knowledge of the work of a foreign educator has come first to the laity, has been popularized, as it were, thru outside influence. This curious reversal of the usual order has stimulated an interest in Dr. Montessori and her new methods for teaching young children among hundreds and thousands who usually hear and care little about academic discussions, so that this book has been talked about and eagerly awaited for months and has an advance sale unprecedented in books of its class.

As I know the book in the original, I confess to having taken up its translation with some trepidation, fearing lest the naïve simplicity and unique charm of the author might be lost. But Miss George has done her work remarkably well. Her intimate friendship with Dr. Montessori during her long stay in Rome has made her extremely sympathetic, while her prolonged and intelligent study of the schools established under Dr. Montessori has fitted her admirably for what was a most arduous task. As I have compared Miss George's translation with others, I can vouch for its superiority and congratulate the author on her good fortune in this respect.

Those of us who have had the pleasure of seeing Dr. Montessori and coming under the spell of her personality find

in this book a wonderful revelation of a great genius. As a human document, that is as the story of the devotion to her task of a true scientist and child lover, it will be read with enjoyment by many to whom the theories of education it contains will be esoteric. On the other hand, the great body of intelligent, alert teachers in this country will find in the book a treasure-trove of wisdom and a manual of education. Never before, I believe, was such a combination of genius, inheritance, training, and experience been united as in this woman. A doctor of medicine, a lecturer on anthropology, a specialist in the problem of the deficient child, a practical educator, a deep student, she has brought all these to focus on the problem of the child of today. As she herself says, fifty years of experiments by physicians culminate in her work built on the foundations of Pinel, Itard, and Séguin. Two hundred years ago this year Rousseau was born, to be followed by Pestalozzi, Herbart, and Froebel, all of whom have aided her genius in its development. Psychologists, such as Weber, Freeman, Wundt, and others, the anthropologists Sergi, di Giovanni, and Lombroso, all of these have been her masters, from all she has learned something; but more than this, she has by the power of her constructive genius brought all into unity and vivified all with the fire of her enthusiasm. An educator, who is a warm-hearted lover of children, an idealist, a reverent spirit, and who is at the same time an anthropologist and a physician, is a hitherto unknown combination, and if to this is added practical inventive ability to devise material admirably fitted to the educational principles, the scale is still more heavily weighted. If we have never before had an educator equipped on so many sides, neither has the child been approached in just this way before, that is, from the deficient to the normal, from the child as the center to its home, from the child as the incentive to the material he is to use.

We have in her book no definite course of study for the child to pursue or body of knowledge to be doled out to him so much a year, but we have a study of the growing healthy child who is to be given liberty, independence, auto-education,

and sense training. We have a new concept of a socialized school in a socialized home with all its appointments fitted to develop the child by liberty based on activity. We have practical instruction in anthropological measurements, in children's diet, in the use of the didactic material devised by her to utilize the child's spontaneous activity and to give him sense training, and in the technique of writing, reading, and numbers. Scattered thru all the pages are aphorisms which will cause us to ponder. "The teacher has too thoroly learned to be the one free activity of the school." "The task of the educator lies in seeing that the child does not confound good with immobility and evil with activity." "He who is served is limited in his independence." "The aim of education is to develop the energies." "Education consists in a series of problems to be solved." "A game is a free activity ordered to a definite end, not a disorderly noise which distracts the attention." "The transformation of the house must compensate for the loss in the family of the presence of the woman who has become a social wage earner." "Multiply the sensations and develop the capacity of appreciation in stimuli and we refine the sensibility and multiply man's pleasures." "The greatest triumph of our educational methods should be thus to bring about the spontaneous progress of the child." "A great deal of time and intellectual force is lost in the world because the false seems great and the truth so small and insignificant." "There exists only one real biological manifestation, the living individual, and toward single individuals, one by one observed, education must direct iself."

Dr. Montessori does not know American schools or American educators, or our educational psychologists like Dewey or Thorndike, neither does she know our progressive kindergarten or elementary schools. Much that she is fighting for in Italy we have gained, much that she could abolish we have left behind. But granting all this, there is enough else in the book to stimulate us to rationalize our hazy conceptions, to give scientific reasons for our methods. She rediscovers principles that have been forgotten. She unifies educational theories and gives them a scientific basis.

This method is still new in Italy and has yet to be adapted to the American child. Racial differences will call for modification and adaptation of the material. The problem of training our teachers is a very real one. Dr. Montessori has always gone on from one problem to another, first that of the deficient child, then of the very young normal child, now of the older child. There is great danger that the apparent simplicity of the material will lead many to use it without a thoro knowledge of the underlying principles. We should take warning from the example of Séguin, whose didactic apparatus was used in France without any knowledge of his principles, with consequent failure after his death.

A careful perusal of this book will lay to rest many of the fears aroused by magazine articles on the methods in which many vital principles were omitted. The reverent, almost religious, spirit in which it is written, its lack of dogmatism, the belief exprest in it that education is character building, training in virtue, all prove that this is no narrow, materialistic, uncreative method. If American teachers will read this book in the spirit of broad-minded fairness in which it is written they can get inspiration and illumination as from no other that I know of.

A few inconsistencies prove Dr. Montessori to be a woman. The practise of giving annual prizes in the Casa dei Bambini is in direct variance with her belief in the folly of prizes or rewards. The chapter on graphic writing, important as it is, is not as clearly written as some of the others. The book lacks condensation and is consequently too long. In many ways the translation is better than the original version. It contains much new material, embodying the experiments and observations of Dr. Montessori and her teachers since her book was first written, and a valuable chapter on the order of presentation of the materials.

As the American translation and publication of this book was suggested by Professor Holmes, of the department of education, Harvard University, his introduction has a twofold interest. Dr. Holmes speaks with authority on the kindergarten, and while he lacks the first-hand knowledge of

Dr. Montessori's work, that can only be gained by a visit to Rome, his exposition of the principles underlying Dr. Montessori's method and their relation to both kindergarten and primary education is most suggestive and valuable. The illustrations are not only more in number but wisely selected to illustrate the very points difficult to understand without seeing the method as used in the school.

There is every evidence of a widespread interest in this book and the method it describes among teachers of every grade from the kindergarten to the university schools of education, and inward searching of heart will result from a study of this great Italian thinker and a new measuring of our present system up to the possibilities she indicates.

ELLEN GALE STEVENS

BROOKLYN HEIGHTS SEMINARY
BROOKLYN, NEW YORK

Bibliothek der Amerikanischen Kulturgeschichte—Edited by NICHOLAS MURRAY BUTLER, President of Columbia University, and Professor WILHELM PASZKOWSKI of the University of Berlin. In three volumes. Vol. 1 and 2: *George Washington,* von Henry Cabot Lodge; Vol. 3: *Die Amerikanische Literatur,* von C. Alphonso Smith. Berlin: Weidmannsche Buchhandlung, 1912.

Three volumes, handsome in letterpress and general make-up, have appeared with the imprint of the Weidmannsche Buchhandlung in Berlin in the new *Bibliothek der Amerikanischen Kulturgeschichte,* under the joint editorship of President Butler of Columbia and Professor Wilhelm Paszkowski of the University of Berlin.

The first two volumes of the series contain the translation into German of Henry Cabot Lodge's well-known life of *George Washington,* which is at the same time the first life of Washington to appear in the German language. The translation is exceptionally well done, and the German reader will not realize, in most instances, that he has to do with other than a book written in the vernacular.

The third volume of the series, *Die Amerikanische Literatur,* is made up of the lectures delivered by Professor C. Alphonso Smith, of the University of Virginia, as Theo-

dore Roosevelt Professor at the University of Berlin, during the winter semester of 1910-11. The book appears for the first time in its present German garb. Wisely, all citations of verse, of which there are many thruout the volume, have been left in their original English. Professor Smith's whole treatment of his subject is fresh, virile, and original, and a better handbook for its particular purpose of conveying to the German public—or for that matter to any public—the wider significance as well as the immediate content of American literature, it would not be easy to provide. The sympathies of the writer's German readers are immediately enlisted by his happy reference in the opening chapter of the book to the four sides of American literature, corresponding to Faust's categories of "Word, Thought, Power, and Deed" in the familiar monologue, and he will undoubtedly hold their interest to the end. Altho the book looks inevitably toward its special audience, as under the circumstances it should, an English version would appeal to many readers in this country who would find in it not a few things that have not before been so well said in any history, great or small, of the literature of America.

The three volumes together form an altogether worthy beginning of a notable undertaking to make better known in Germany conditions of American life as embodied in its literature than is at present the case. As such, it has a deeper significance than may at first appear as still another link in the chain of intelligibility that with every year helps to unite two of the great nations more closely together in the peaceful alliance of a common culture.

William H. Carpenter

Columbia University

We welcome and gladly commend the attractive and convenient edition of Count Tolstoy's works in the fourteen volumes printed on Bible paper which has just been issued by Crowell. Tolstoy has taken his place as one of the great writers and intellectual forces of the nineteenth century, and this edition of his works will make it possible for both indi-

vidual readers and school and college libraries to have easy and agreeable access to his massive contributions to contemporary literature. (New York: Thomas Y. Crowell & Co., 1912. 14 volumes. $1 each.)

A careful piece of modern scientific work finds its expression in *Evolution of animal intelligence,* by Professor S. J. Holmes of the University of Wisconsin. (New York: Henry Holt & Co., 1911. 296 p. $2.75.)

The fruit of Professor Angell's work a year ago as Spencer lecturer at Union College is brought together in an attractive volume entitled *Chapters from modern psychology.* Professor Angell has given here a very illuminating and competent survey of the science of psychology as it exists today. We regret to see so useful a book issued without an index. (Longmans, Green & Co., 1912. 308 p. $1.35.)

Father Gruender, professor of psychology at St. Louis University, has written a sharp criticism of much modern psychological writing under the title *Psychology without a soul.* He defines the soul as the last source of thinking, feeling, and willing. (St. Louis, Mo.: B. Herder, 1912. 245 p.)

Organ and function is the title of a not very significant book by B. D. Hahn which offers a study of evolution. (Boston: Sherman, French & Co., 1911. 197 p. $1.00.)

The master of evolution, by George MacNish, it gives us regret to say, is similarly unsatisfying. Several diligent attempts to understand it have resulted in failure. (Boston: Sherman, French & Co., 1911. 136 p. $1.00.)

We welcome gladly the charming *Study of William James* by Professor Boutroux, which has been turned from its original French into satisfying English by Archibald and Barbara Henderson. Professor Boutroux is one of the most accomplished and delightful of living philosophers, and his *Study of William James* is in the highest degree sympathetic and illuminating. (New York: Longmans, Green & Co., 1912. 126 p. $1.00.)

A truly delightful book, displaying scholarship and high critical power, is Professor William Allan Neilson's *Essentials of poetry.* This little book may well take rank with the best

literary and critical essays of the past few years. (Boston: Houghton Mifflin Company, 1912. 282 p. $1.25.)

Among English students and writers on the philosophy of politics, Professor Leonard T. Hobhouse easily takes a leading place. His important book, entitled *Social evolution and political theory,* just published by the Columbia University Press, should be widely and attentively read in this country just now. It is in effect a study of political progress by a man of wide learning, clear vision, and deep human sympathy. New York: Columbia University Press, 1912. 218 p. $1.50.)

A new textbook for secondary schools on *Government and politics in the United States* has just been published from the pen of Superintendent Guitteau of Toledo, Ohio. It abounds in material that is well arranged and attractively illustrated. (Boston: Houghton Mifflin Company, 1912. 454 + xxxv p. $1.00.)

We wish that more attention might be given by persons not themselves Catholics to the excellent books on education which keep constantly coming from the pen of Catholic teachers and scholars. We find much that is delightful and stimulating in the *Education of Catholic girls,* by Janet Erskine Stuart. Miss Stuart puts emphasis where emphasis should be put in the education of women, and devotes but little time to the superficialities and trivialities of the subject. (New York: Longmans, Green & Co., 1911. 242 p. $1.25.)

Professor Frank P. Graves of Ohio State University has added another book to his contributions to the literature of the history of education in his volume entitled *Great educators of three centuries.* He offers studies of Milton, Bacon, Ratich, Comenius, and other scholars down to Horace Mann and Herbert Spencer. (New York: The Macmillan Company, 1912. 288 p. $1.00.)

X

NOTES AND NEWS

The Future of London University

American students of education should know that the *London Times* has recently begun the publication of an Educational Supplement on the first Tuesday of every month, and that this Supplement may be had statedly in connection with the weekly edition of the *Times*. This Educational Supplement provides a new and admirable means of information regarding educational thought and practise in Great Britain. For example, one would not have gained from ordinary newspaper sources any knowledge of the fact that great plans are making for the development and expansion of London University, that a new site is in contemplation, and that large funds are being raised to carry the project to completion. The following treatment of this subject, which appeared in the last Educational Supplement of the *London Times,* is full of information and suggestion:

"The growth of modern universities in this country is the outstanding intellectual fact in our recent development. In England, Scotland, Ireland, and in Wales new universities have been created, old ones have been reorganized, and university colleges are adapting themselves to the full university standard. The causes of this widespread movement may be described in many ways, but all are connected with one feature of the spirit of our times. In every direction we recognize a growing faith in knowledge as the measure and the lever of progress. In a poem which appealed very forcibly, ten years ago, to the popular imagination, we were told, in oft-quoted lines, that

"'Time, and the ocean, and some fostering star,
In high cabal have made us what we are.'

There are dangers, however, in relying upon so notoriously unstable a form of government; and there are signs that England is acting upon the warning conveyed in a later passage in the same poem—

> "'For now the day is unto them that know,
> And not henceforth she stumbles on the prize;
> And yonder march the nations full of eyes.'

This high note of patriotism combined with a sense of the special position of our country in the modern world has given this poem its place in the history teaching of a thousand schools; this belief that knowledge, in the widest sense, is 'the basis of national strength' supplies the almost prophetic fervor of the communications which we are publishing from Miss Charlotte Mason; and it is the widespread recognition of the truth that this knowledge is the lawful heritage of the elect of every class that gives driving force to the whole university movement. The knowledge that is the peculiar treasure of universities is no longer regarded as some mystic possession to be handed down from one generation of self-appointed guardians to another: it is rather the leaven of efficiency without which the fabric of our national life will become stale and profitless.

"Here in London the conditions of intellectual life and the special difficulties with which the university has had to contend may have dulled our sense of the significance of this movement, which is apparent in the industrial North and in the more distant parts of the kingdom. But in London we are becoming conscious at last of the possibilities of a university worthy of the seat of Empire; and the series of munificent gifts towards the purchase of a new central site which we have recorded in the last few days has brought home to all of us, in a very practical way, that a great movement is on foot. The total of the fund is now £355,000—a remarkable and gratifying result to have been attained in a very short period of time. Sir Francis Trippel has set himself the task of procuring one million sterling for the site and the necessary buildings; and, tho a third of the

amount has been secured, much still remains to be done before the success of the scheme can be assumed. But London has many wealthy citizens, and its citizens have very high traditions of public liberality to maintain. Contributors to the University scheme will be doing in their day and generation just what their predecessors, with much smaller means, if we judge by the existing value of money, have done in past generations, to the enormous advantage of persons now living. If we judge by the value of money in their days, their benefactions need not fear comparison with the best efforts of their successors; and, if their example be followed in their spirit, the million which would have seemed to them an immense sum, but is now the accepted unit of measurement for a great many private fortunes, ought not to take long to put together. It has often been said that London is too vast to inspire men with the civic pride and loyalty found in the dwellers in less unwieldy cities. We do not believe that the reproach holds good at the present time. Londoners have learned to think and to give in terms commensurate with the magnitude of the metropolis. At the same time, the importance of education, and of the higher education, in national life has come to be appreciated with a fulness unequaled since the days of the great foundations at Oxford and Cambridge. London and university education now make their combined appeal to wealth, which finds its best justification, in face of so much poverty, in its ultimate application to purposes of public and national utility.

"There is always a risk that a movement of this kind may be hampered by the difficulty of finding a suitable site just when it is wanted. In the present case a site presents itself which has many advantages, altho some might perhaps prefer another were it equally attainable. The site upon the Bedford estate just behind the British Museum and close to University College is not only central, suitable for the erection of a really fine architectural monument, and easy of access, but by its proximity to the two great institutions just named strikes the imagination as linking them together and forming with them a massive embodiment of the intellectual

activity of the metropolis. It is worth noting that a great part of the money already promised has been offered with special reference to this site. There may be other sites as good, but there is none that we know of that is better or more certainly procurable. It is to be hoped, at all events, that the scheme will not be hindered by any misunderstandings or disagreements among those interested in doing the best that can be done for the new University of London. The Royal Commission on the University is now nearing the end of its labors, and we understand that its final report may be expected within the next twelve months. When that report is published, its recommendations will no doubt give rise to the keenest controversy; but in the meantime it is to be hoped that the scheme for a new site, advocated in the recent interim report, will receive the sympathetic support of the Senate, which has worked so strenuously for the University in the past. Their support, we are confident, will not be the less readily given when they reflect that the establishment of the University in its new home will leave the Imperial Institute free to develop its activities and to take that great position in the organization of the Empire which, it is understood, would be in accordance with hopes exprest in the highest quarters."